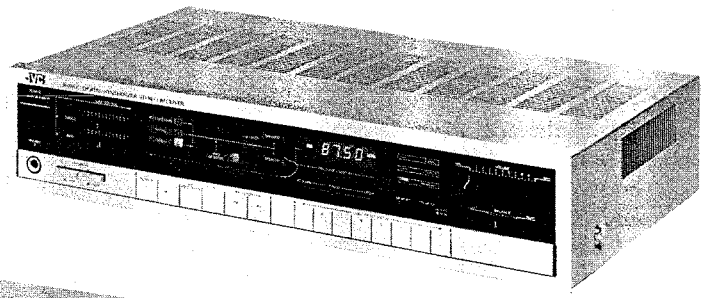
JVC

SERVICE MANUAL

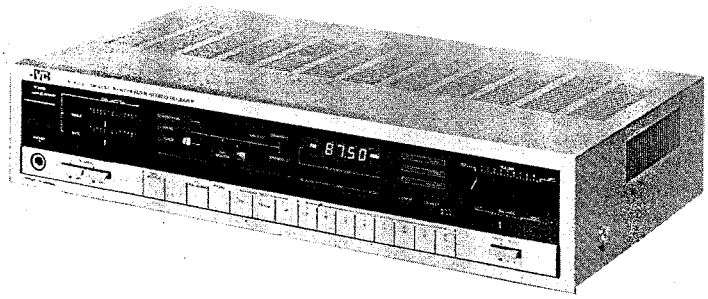
STEREO RECEIVER

MODEL

R-X110/R-X110B
R-X110L/R-X110LB



R-X110



R-X110L

Model	Version	
	Feature	Color
R-X110	–	Silver
R-X110L	with LW	Silver
R-X110B	–	Black
R-X110LB	with LW	Black

Contents

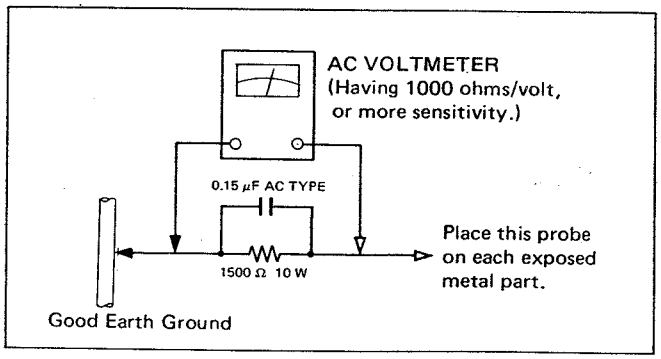
Safety Precautions 1-1
1. Specifications 1-2
2. Names of Controls and Their Functions 1-3
3. Removal Procedures 1-5
3-(1) Metal cover section 1-6
3-(2) Front panel section 1-6
3-(3) Chasis base section 1-6
4. FM/AM(MW/LW) Tuner Alignment Procedures . . . 1-7
5. Block Diagram 1-9
Parts List . . . . . Separate-volume Insertion
6. R-X110/R-X110L Schematic Diagram
6-(1) R-X110 Tuner Section 1-10
6-(2) R-X110L Tuner Section 1-11
6-(3) R-X110/R-X110L Amplifier Section 1-12
6-(4) Internal Block Diagram of
Major LSI ICs 1-13

This manual combines two single volumes; Service manual and Parts list.

No. 2798
Dec. 1984

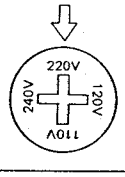
Safety Precautions

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in Service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and/or the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
   When service is required, the original lead routing and dress should be observed, and they should be confirmed to be returned to normal, after re-assembling.
5. To confirm the polarity of the power cord and AC outlet (Canada only).
   When replacing the power cord or the AC outlet, make sure that the power switch or the protection device (the primary fuse etc.) is NOT connected to the ground power side of the plug and AC outlet (wider blade of plug or wider hole of the AC outlet).
6. Leakage current check
   (Safety for electrical shock hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
   - Alternate check method.
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).


AC VOLTMETER
(Having 1000 ohms/volt, or more sensitivity.)
0.15 μF AC TYPE
1500 Ω 10 W
Place this probe on each exposed metal part.
Good Earth Ground

CHECKING YOUR LINE VOLTAGE (Except for U.S.A., Canada, Australia, U.K. and Continental Europe.)
Before inserting the power plug, please check this setting to see that it corresponds with the line voltage in your area. If it doesn't, be sure to adjust the voltage selector switch to the proper setting before operating this equipment. The voltage selector switch is located on the rear panel.

CAUTION Before selecting the "Voltage selector switch" to proper voltage disconnect the power plug.



1. Specifications

AMPLIFIER SECTION

	'78 IHF
RMS Power	: **25 watts per channel, min. RMS, both channels driven, into 8 ohms from 40 Hz 40 Hz to 20 kHz, with no more than 0.5 % total harmonic distortion.**
	27 watts per channel, min. RMS, both channels driven into 8 ohms at 1 kHz with no more than 0.7 % total harmonic distortion.
Total Harmonic Distortion	: 0.1 % at 25 watts (1 kHz, 8 ohms)
Input Sensitivity/Impedance	
PHONO	: 2.5 mV/47 kohms
TAPE PLAY/CD/ VIDEO SOUND	: 150 mV/40 kohms
Recording Output Level	: 140 mV
Frequency Response	: 20 Hz – 20 kHz, +1 dB, -1 dB (8 ohms)
Tone control	
TREBLE	: ± 8 dB (10 kHz)
BASS	: ± 8 dB (100 Hz)
Signal to Noise Ratio	
PHONO	: 70 dB ('66 IHF) 59 dB (DIN) 78 dB ('78 IHF, Rec out)
TAPE PLAY/CD/ VIDEO SOUND	: 91 dB ('66 IHF) 64 dB (DIN) 74 dB ('78 IHF)

FM TUNER SECTION

	'78 IHF	DIN (for Europe)
Tuning Range	: 87.5 MHz–108.0 MHz	87.5 MHz–108.0 MHz
Usable Sensitivity	: Mono 10.8 dBf 0.95 μV/75 ohms 1.9 μV/300 ohms	(S/N 26 dB) 1.5 μV/75 ohms –
50 dB Quieting Sensitivity	: Mono 16.3 dBf (1.8 μV/75 ohms) (3.6 μV/75 ohms) Stereo 38.3 dBf (22.5 μV/75 ohms) (45 μV/300 ohms)	– –
S/N 46 dB Stereo Sensitivity	: –	Stereo 23 μV/75 ohms –
Signal to Noise Ratio (at 98 MHz, 80 dBf)	: Mono 80 dB Stereo 73 dB (A-net.)	Mono 72 dB Stereo 64 dB (weighted)
Total Harmonic Distortion 1 kHz	: Mono 0.15 % Stereo 0.20 %	Mono 0.1 % Stereo 0.3 %
Frequency Response	: 30 Hz – 15 kHz, +0.3 dB, – 5 dB	
Capture Ratio	: 1.5 dB	1.0 dB
Alternate Channel Selectivity	60 dB, ±400 kHz	55 dB, ±300 kHz
Image Response Ratio	: 55 dB at 98 MHz	
IF Response Ratio	: 85 dB at 98 MHz	
Stereo Separation	: 40 dB at 1 kHz	

AM TUNER SECTION

	'78 IHF	DIN (for Europe)
MW		
Tuning Range Channel space 9 kHz	: 522 kHz–1611 kHz	522 kHz–1611 kHz
Channel space 10 kHz	: 520 kHz–1710 kHz	
Sensitivity	: 350μV/m at 1000 kHz 30 μV at 1000 kHz	350μV/m at 999 kHz 30 μV at 999 kHz
Signal to Noise Ratio (100mV/m)	: 50 dB at 1000 kHz	50 dB at 999 kHz 45 dB for R-X110L/LB
Selectivity	: 38 dB, ±10 kHz at 1000 kHz	35 dB, ±9 kHz at 999 kHz

LW (R-X110L only)

Tuning Range	: 153 Hz – 360 kHz
Sensitivity	: 600 μV/m at 245 kHz 100 μV at 245 kHz
Signal to Noise Ratio (100 mV/m)	: 45 dB at 245 kHz
Selectivity	: 45 dB ±9 kHz at 245 kHz

Design and specifications subject to change without notice.

Power Specifications

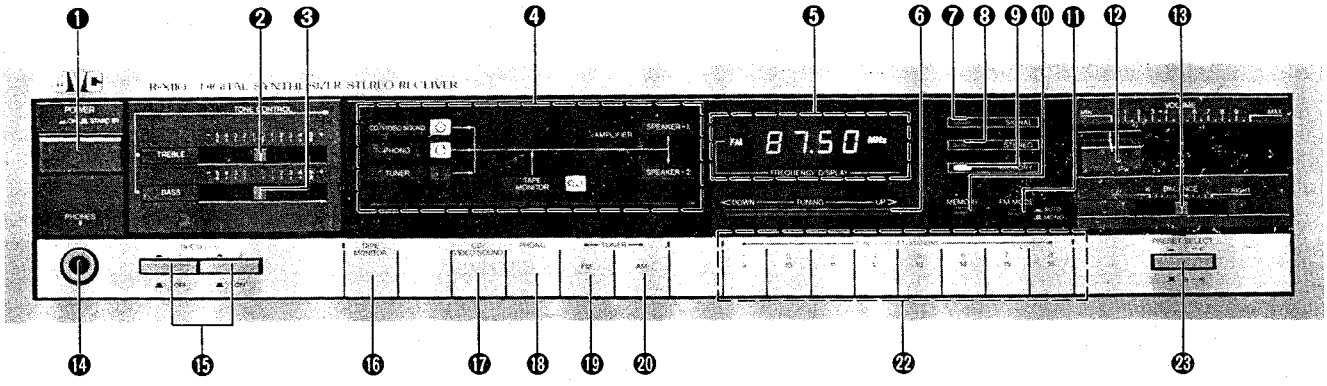
Areas	Line Voltage & Frequency	Power Consumption
U.S.A., Canada	AC 120 V, 60 Hz	100 W, 130 VA
Europe	AC 220 V∿, 50 Hz	80 watts
U.K., Australia	AC 240 V∿, 50 Hz	80 watts
Other Areas	AC 110/120/220/240 V∿, Selectable, 50/60 Hz	80 watts

Dimensions and Weight

Dimensions			Weight
Height	Width	Depth	Net
92 mm (3-5/8")	435 mm (17-1/8")	265 mm (10-7/16")	3.8 kg (8.4 lbs)

2. Names of Controls and Their Functions

R-X110



❶ POWER

ON (▬): Press to set to this position to turn the power on.

STAND BY (▙): When the power cord is plugged into an AC outlet, the memory circuit operates and the preset stations and the source selectors are not subject to cancellation or accidental alteration. The preset data and the source select data are maintained even in the case of a power failure or when the power cord is disconnected, if the period power is not applied does not exceed a couple of days.

Notes:

- **Even when the POWER button is set to STAND BY, this receiver consumes a small amount of electricity (5 watts). To shut the power completely off, disconnect the power cord.**
- **An electronic source selector is used in this unit. When the POWER button is first switched on, two or more sources or no source may be selected. Make sure to input the source select data by pressing one of the source selectors.**

❷ TREBLE

Slide to the right to boost treble response, to the left to decrease it.

❸ BASS

Slide to the right to boost bass response, to the left to decrease it.

❹ Source indicators

The indicator corresponding to the source select button pressed lights.

❺ Frequency display

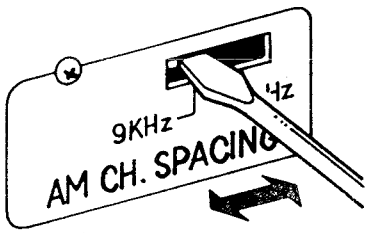
The tuned-in frequency is displayed digitally as follows:

For AM reception: Four digits (kHz) are displayed.

For LW reception: Three digits (kHz) are displayed.
(R-X110L/R-X110LB only)

For FM reception: Five digits (MHz) are displayed.
(for continental Europe, the U.K., Australia and other areas.)
Four digits (MHz) are displayed.
(for the U.S.A. and Canada)

Example



Switch over using the tip of a screwdriver as shown in Fig. 11.

❻ TUNING UP/DOWN

When the UP/DOWN-scanning button is pressed, the frequency changes in predetermined steps (see table below). Tapping this button changes the tuner step by step; pressing continuously (more than 0.5 sec.) changes tuning by high speed scanning which stops when the button is released. After choosing the frequency you want to listen to, hold the button pressed to scan rapidly until the display approaches the desired frequency, then tap the button lightly to tune precisely.

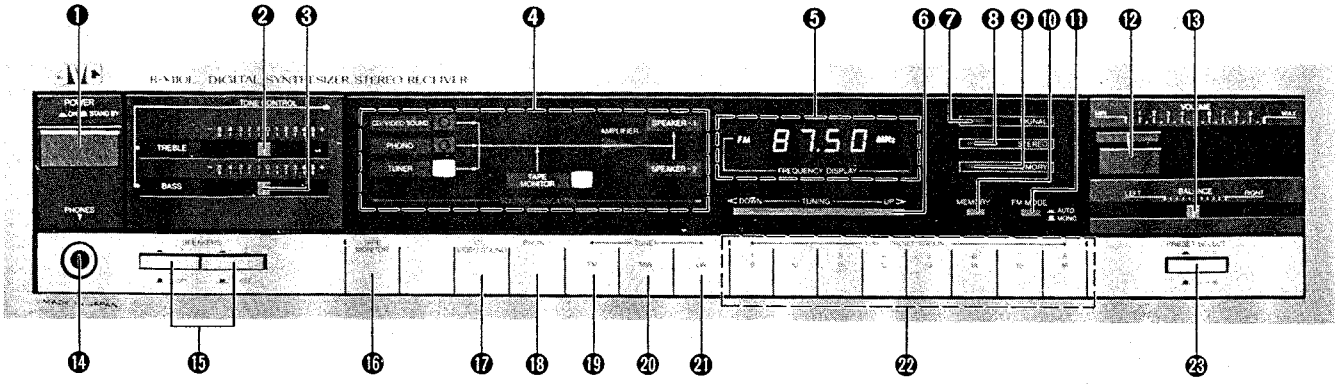
Channel spacing

AM channel spacing knob (R-X110/R-X110B only) is provided on the rear panel for selecting 9 kHz or 10 kHz steps according to your area. (Fig. 11)

Band / Area	FM	AM (MW)	AM(LW)
U.S.A., Canada	100 kHz	10 kHz	–
Europe, Australia	50 kHz	9 kHz	1 kHz
Other areas	*50 kHz	*9 kHz	–
	100 kHz	10 kHz	

Note: *Preset at the factory.

R-X110L



❼ SIGNAL indicator
This LED lights when the signal is input. Tune to the required frequency while watching the frequency display ❺.

❽ FM STEREO indicator
This LED lights when tuned to an FM stereo broadcasts.

❾ MEMORY indicator
When the MEMORY button is pressed, this MEMORY indicator lights to show that the unit is ready to store a preset frequency in memory. This indicator will go out automatically in about 10 sec. or when the station select button is pressed.

❿ MEMORY
Press this button and the MEMORY indicator will light to show that memory is ready to receive a frequency. (This button is non-locking type.)
Pressing the station select button while the MEMORY indicator is lit (for about 10 sec.) stores the frequency being received in memory.
When the MEMORY indicator is not lit, the memory function does not operate.

⓫ FM MODE (MUTE)
This button is used to select FM AUTO (MUTE ON)/MONO (MUTE OFF) mode. When stereo reception is possible, set this button to AUTO (MUTE ON) (▂). This also eliminates inter-station noise during FM tuning.
When signals are too weak to be received or a stereo broadcast is unsatisfactory, set to MONO (MUTE OFF) (▇). Stereo will be changed to mono, but sound quality will be improved. This is convenient to bring in distant FM stations without muting.

⓬ VOLUME
This knob has an auto loudness effect. When the volume is lowered, the sound with compensated high and low frequencies can be obtained.

⓭ BALANCE
Use to adjust the balance between the left and right speakers.

⓮ Headphone jack (PHONES)
Plug stereo headphones into this jack for private listening and to monitor recording. For private listening, set the SPEAKERS buttons to OFF.

⓯ SPEAKERS-1/SPEAKERS-2
Press to switch the speakers connected to the SPEAKERS 1 and/or 2 terminals on and off.

Note:
- **When speakers are connected to only one system of the SPEAKERS terminals, press only the SPEAKERS button of the system connected; if both buttons are pressed, sound will not be heard from either speaker system. When two pairs of speakers are connected and either or both SPEAKERS buttons is/are pressed, sound will be heard from either or both speaker system(s).**

⓰ TAPE MONITOR
Press to listen to the tape deck connected to the TAPE terminals. Press it again to hear the source selected with the source select buttons.

⓱ CD/VIDEO SOUND
Press to hear or record sound from compact disc, video, or other equipment connected to the CD/VIDEO SOUND terminals on the rear panel.

⓲ PHONO
Press to hear or record sound from the turntable connected to the PHONO terminals on the rear panel.

⓳ FM
Press to switch on the FM tuner section.

⓴ AM (for R-X110/R-X110B): MW (for R-X110L/R-X110LB)
Press to swtich on the AM (MW) tuner section.

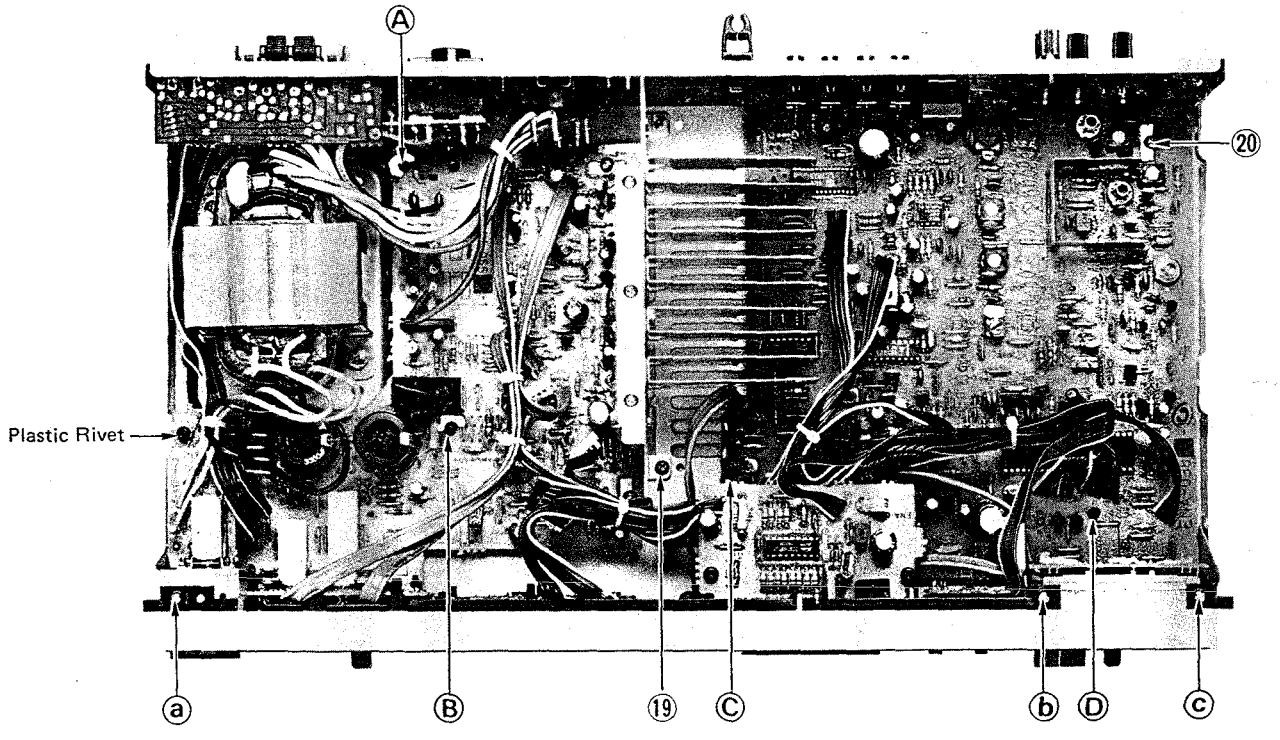
㉑ LW (R-X110L/R-X110LB only)
Press to switch on the LW tuner section.

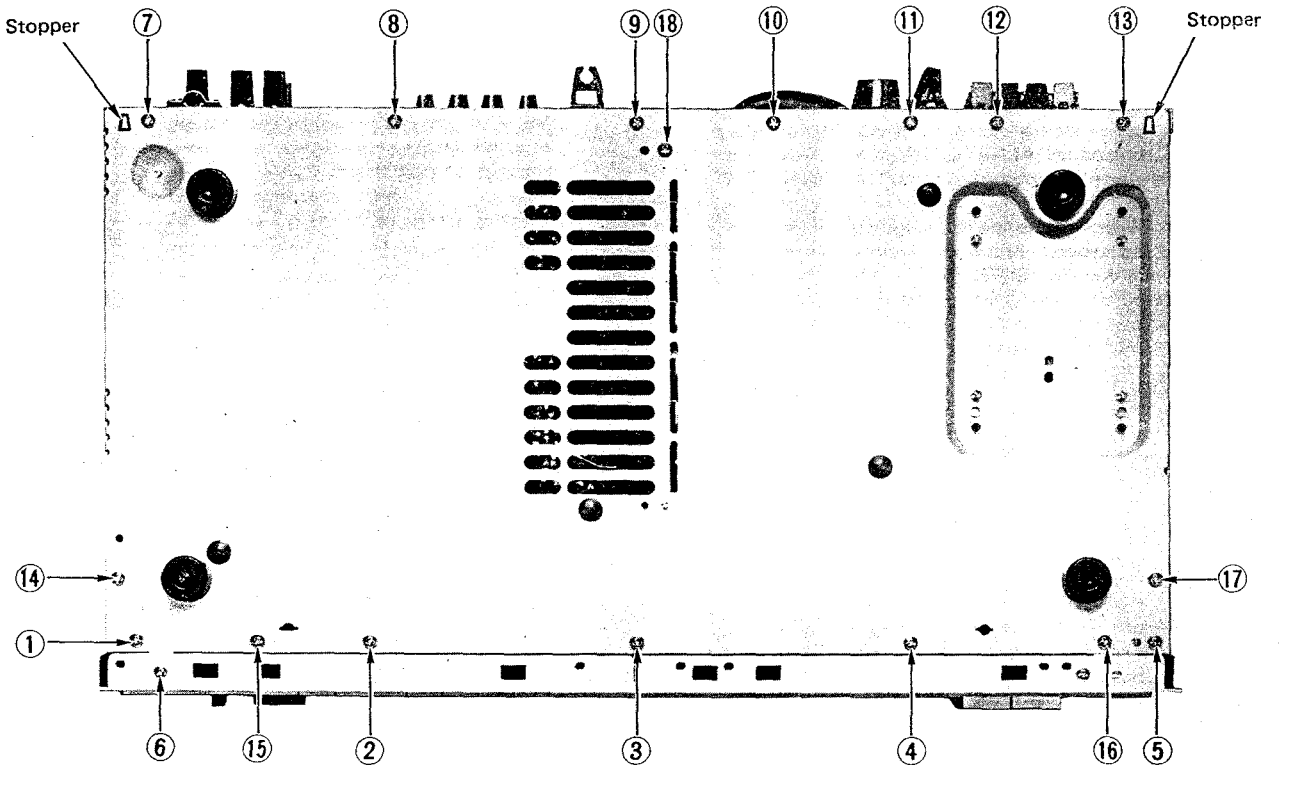
㉒ Station select buttons
These buttons are used to select one of the preset stations or to store the station frequency in memory. If one of these buttons is pressed when the MEMORY button is pressed in, the frequency being received will be stored in memory.
Up to 16 FM and AM stations can be stored in memory, 8 for each position of the PRESET SELECT button (Continental Europe, U.K. and Australia).
8 FM and AM stations can be preset in memory (U.S.A., Canada and other countries).

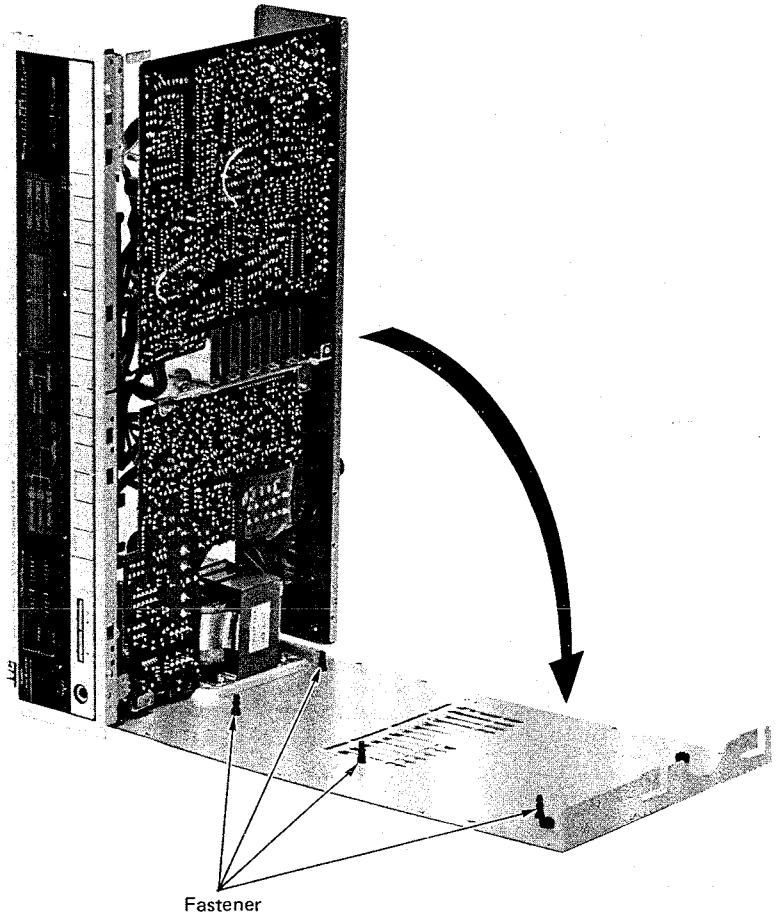
When you switch from radio reception to any other mode or set the power button to STAND BY, then switch back to the radio or switch the power on again, you will hear the station previously selected.

㉓ PRESET SELECT
Press to set to channels 1—8 (▂) or channels 9—16 (▇).
(only for Continental Europe, U.K. and Australia.)

3. Removal Procedures







3-(1) Metal Cover Section

1. Remove the screws securing the metal cover — two screws from its two sides and three from its rear side.
2. Extract the metal cover while lifting its rear side.

3-(2) Front Panel Section

1. Demount the metal cover (refer to item 3-(1) above).
2. Remove three screws (a), (b) and (c).
3. Remove five screws (1) through (5) — namely, those screws that jointly secure the front panel and the chassis base through the panel bottom side.
4. Remove screw (6) — the one that secures the front panel through its lower side.

3-(3) Chassis Base Section

1. Demount the metal cover (refer to item 3-(1) above).
2. Remove 16 screws (1) through (5) and (7) through (17) — those screws that secure the chassis base through its bottom side.
3. Remove two screws (18) and (19) securing the heat sink.
4. Remove screw (20) securing the tuner PC board.
5. Extract the plastic rivet securing the amplifier PC board.
6. Remove four fasteners (A), (B), (C), and (D) securing the tuner PC board and the amplifier PC board. (Push in the fasteners while using radio-repair pliers or a similar tool to grip the fastener head.)
7. Open the chassis base while loosening the stopper engaged with the rear panel.

4. FM/AM (MW/LW) Tuner Alignment Procedures

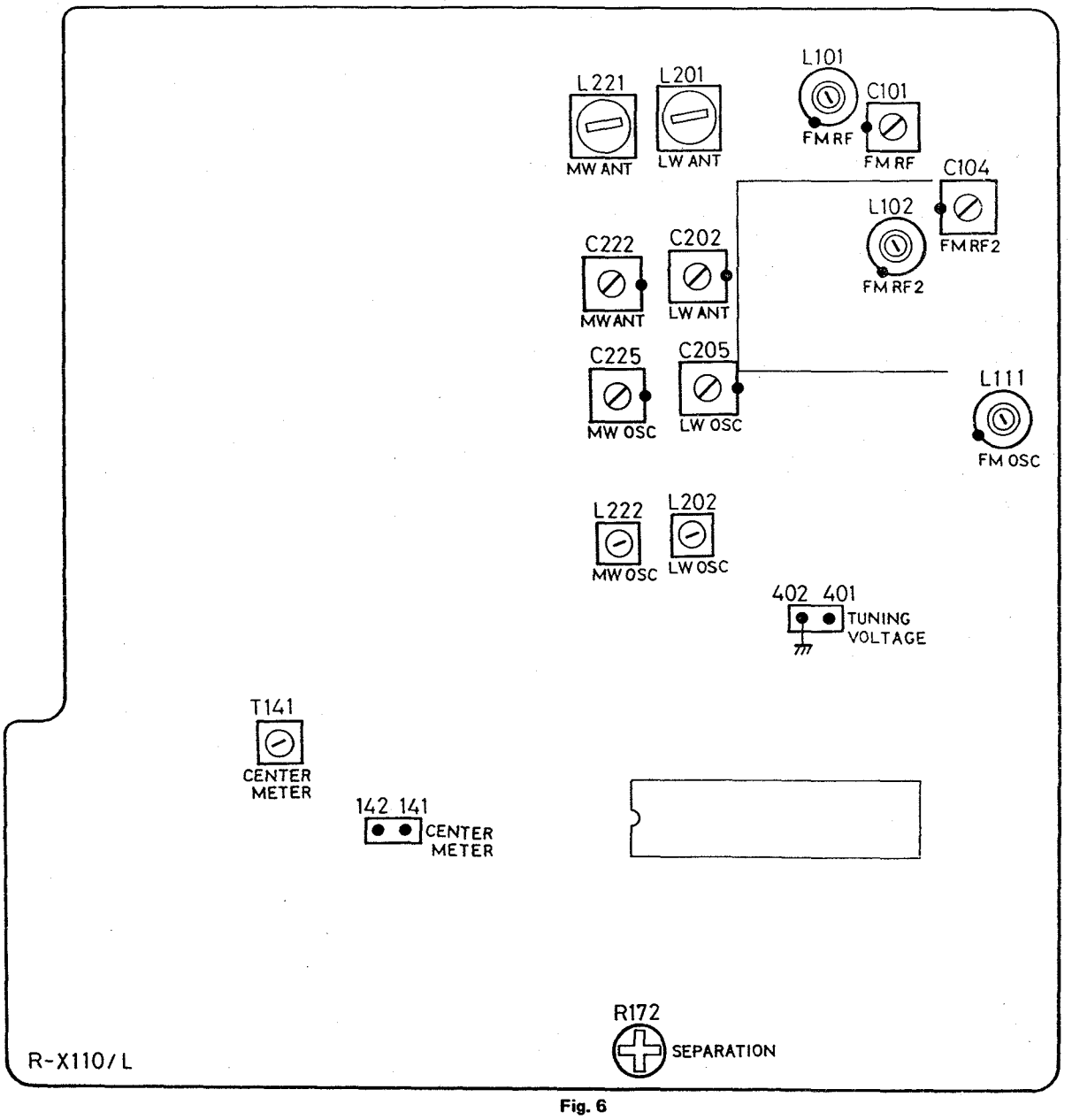


Fig. 6

FM Section

Band Cover

1. Set the frequency display to 108.0 MHz.
2. Connect a DC. VTVM. to TP401 and TP402 (GND).
3. Adjust L111 so that the VTVM. shows 9.00 V.
4. And set the frequency display to 87.5 MHz.
5. Check the VTVM. voltage reading 1.60 V ± 0.5 V.

Note: After adjustment, confirm that the band cover is as follows: (for West Germany only)
FM: Low-end 87.5 MHz -300 kHz
High-end 108.0 MHz +500 kHz

Sensitivity

Low Frequency

1. Connect an RF generator to 75 Ω antenna terminals on the rear panel through a dummy antenna. (FM 75 Ω : 75 Ω PAD)
2. Set an RF generator to 90 MHz, a modulation of 1 kHz and a deviation of 75 kHz to provide an input of 1 μV.
3. Connect a VTVM and an oscilloscope to the Rec. out jacks on the rear panel.
4. Set the frequency display to 90 MHz.
5. Adjust coils L101, L102 to maximize the output.

High Frequency

6. Set the RF generator to 106 MHz, a modulation of 1 kHz and a deviation of 75 kHz to provide an input of 1 μV.
7. Set the Frequency Display to 106 MHz.
8. Adjust the FM trimmers C101, C104 to maximize the output.
9. Repeat these high and low frequencies adjustment alternately until maximum sensitivity is obtained.

Descriminator, Distortion and Signal Gain

1. Press to FM position.
2. Connect an RF generator, 1 kHz modulation and a 75 kHz deviation to the antenna terminals on the rear panel through a dummy antenna.
3. Connect an oscilloscope, Distortion Meter and VTVM to the Rec. out jacks on the rear panel.
4. Set the RF generator to 98 MHz, generator output to minimize.
5. Set the Frequency Display to a 98 MHz.
6. Connect a DC VTVM between TP141 and TP142.
7. And set the RF generator output to 0.5 mV.
8. Adjust the core of T141 for DC VTVM reading of 0 (zero) mV.

Stereo Separation (for Europe, U.K. and Australia only)

1. Set the stereo signal generator as follows: 400 Hz modulation frequency, 7.5 kHz deviation pilot, 67.5 kHz main and sub carriers. Connect its output to the RF generator.
2. Connect an RF generator to the antenna terminals through a dummy antenna.
3. Switch the selector of stereo modulator to left channel modulation.
4. Adjust R172 so that the output of right channel is minimized.
5. Switch the selector of the modulator to right channel modulation.
6. Adjust R172 so that the left channel is minimized.
7. Set R172 to an average, if the separation of left and right is different.

AM(MW) Section

Band Cover

1. Press to AM(MW) position.
2. Set the frequency display to 520 kHz (10 kHz channel step), or 522 kHz (9 kHz channel step).
3. Connect DC. VTVM. TP401 and TP402 (GND).
4. Adjust L222 so that the VTVM. shows 0.95 V.
5. And set the frequency display to 1710 kHz (10 kHz channel step), or 1611 kHz (9 kHz channel step).
6. Adjust C225 so that the DC. VTVM. reads 9.00 V for 1710 kHz, or 7.50 V for 1611 kHz.

Tracking and Sensitivity

Note: Be sure to perform this adjustment posterior to the LW tracking adjustment.

1. Connect the loop antenna. Also connect the RF generator to the antenna terminal on the rear panel.
2. Set the generator to 600 kHz (or 603 kHz) with 30 % modulation at 400 Hz.
3. Set the frequency display to 600 kHz, or 603 kHz.
4. Adjust the core of L221 to maximize the output.
5. Set the generator to 1400 kHz, or 1404 kHz.
6. Set the frequency display of the unit to 1400 kHz, or 1404 kHz.
7. Adjust C222 so that the output signal is maximized.
8. Repeat these adjustments (1 ~ 7) alternately untill maximum sensitivity is obtained.

LW Section

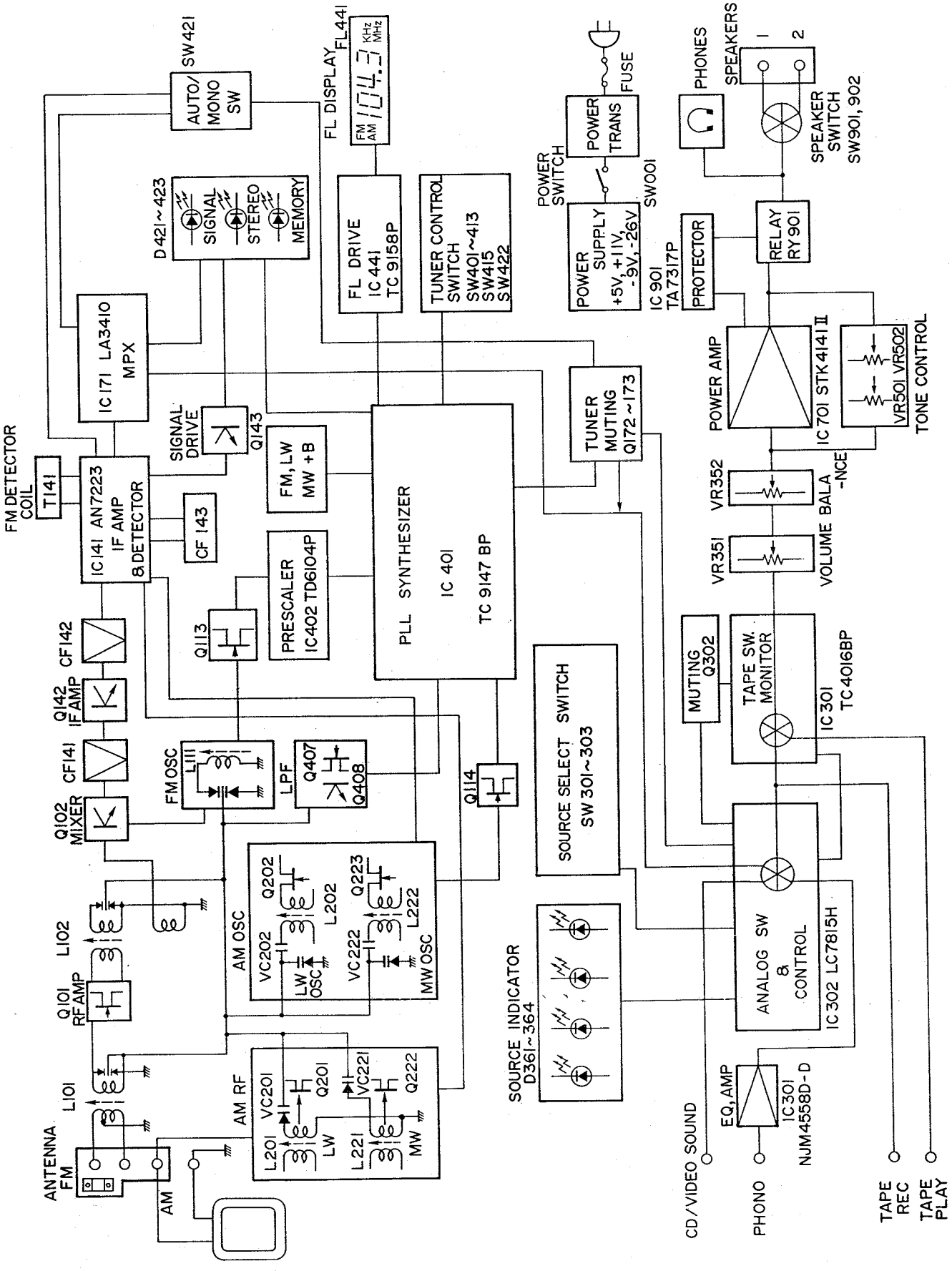
Band Cover

1. Press to LW position.
2. Set the frequency display to 153 kHz.
3. Connect a DC. VTVM. to TP401 and TP402 (GND).
4. Adjust L202 so that the VTVM. shows 1.10 V.
5. Set the frequency display to 360 kHz.
6. Adjust C205 so that the VTVM. reads 8.00 V.

Tracking and Sensitivity

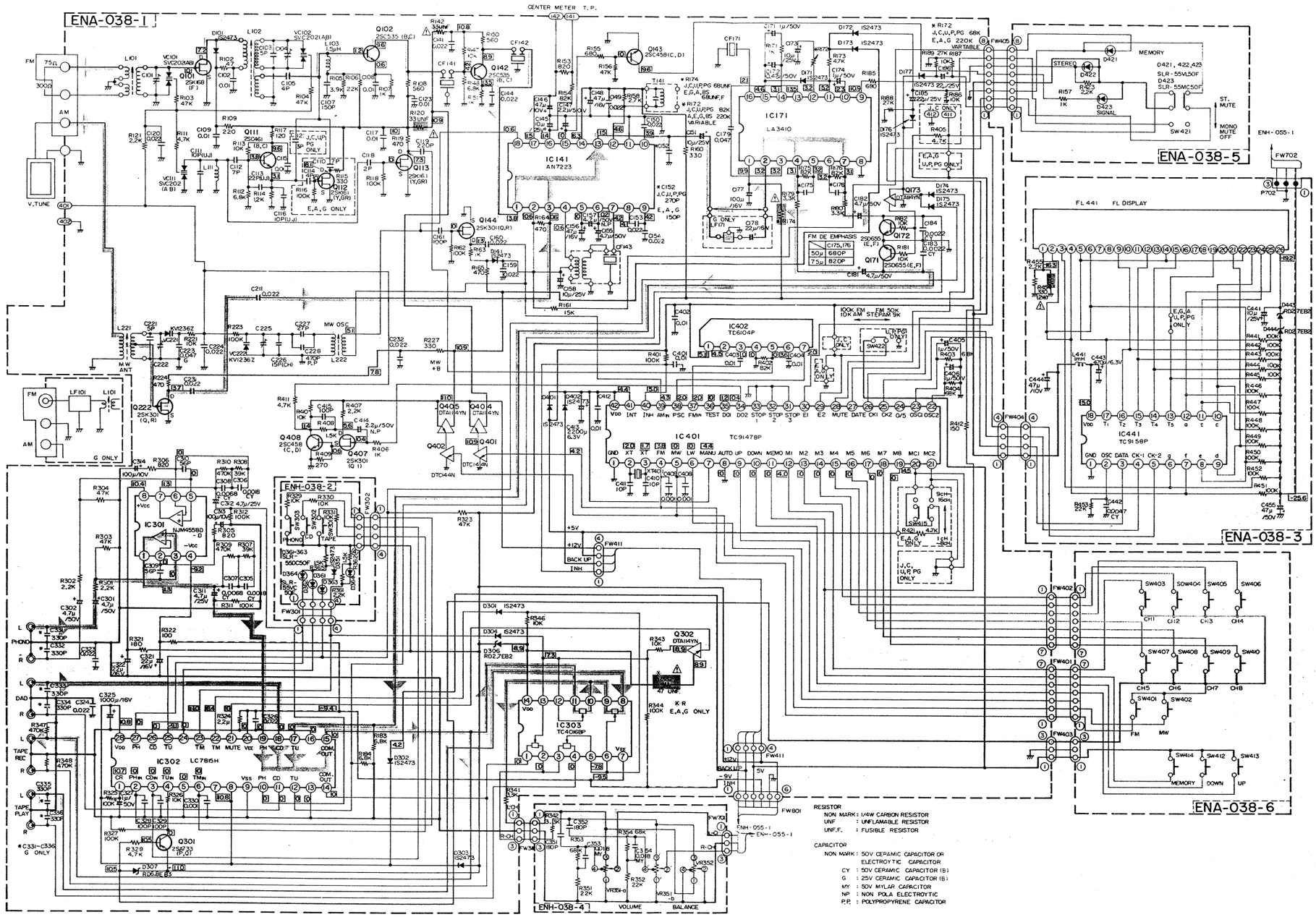
1. Connect the loop antenna. Also connect the RF generator to the antenna terminal on the rear panel.
2. Set the generator to 164 kHz with 30 % modulation at 400 kHz.
3. Set the frequency display to 164 kHz.
4. Adjsut the core of L201 to maximize the output.
5. Set the frequency generator to 353 kHz.
6. Set the frequency display of the unit to 353 kHz.
7. Adjust C202 so that the output signal is maximized.
8. Repeat these adjustments (1 ~ 7) alternately untill maximum sensitivity is obtained.

5. Block Diagram



6. R-X110/R-X110L Schematic Diagram

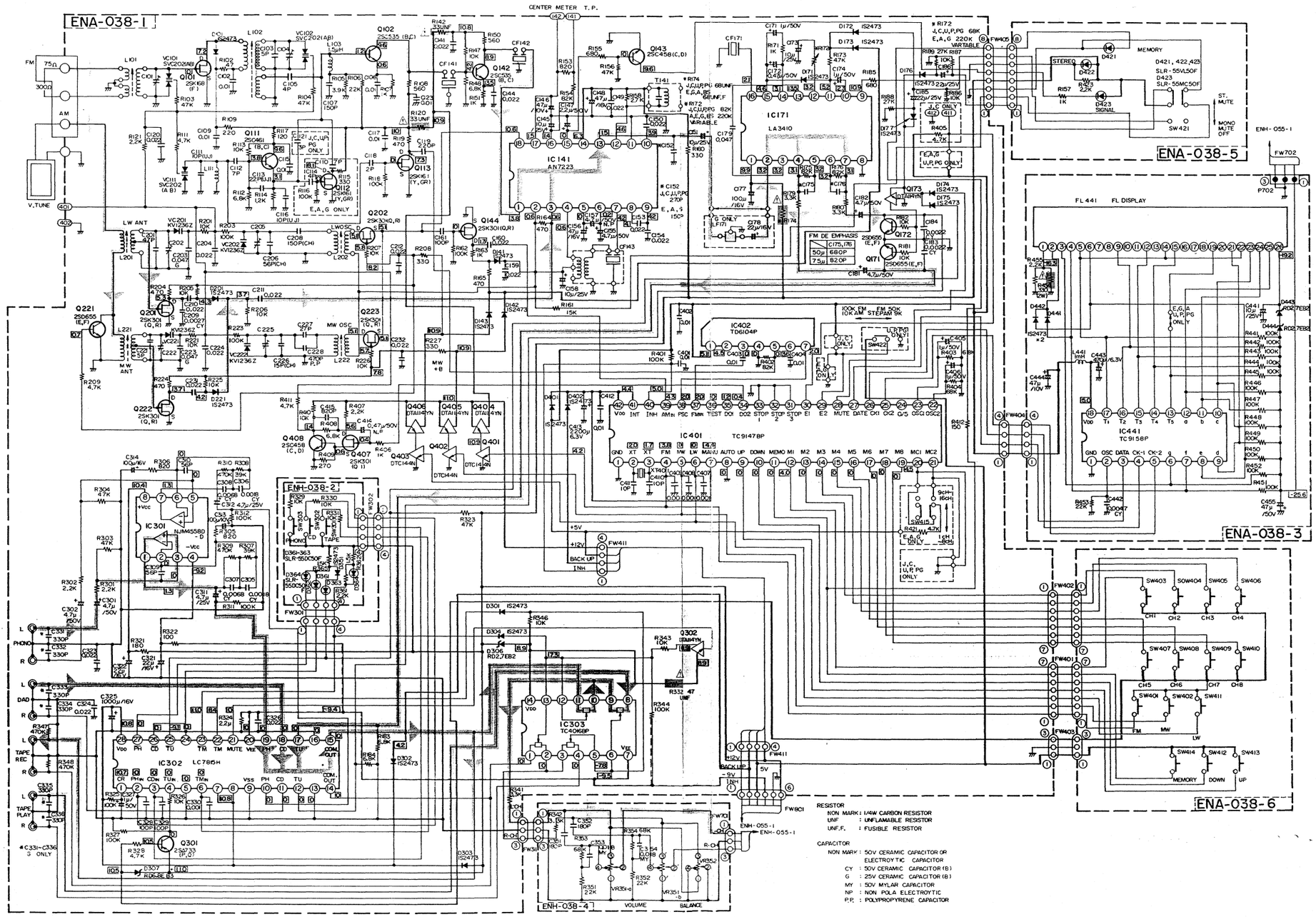
6-(1) R-X110 Tuner Section



Notes:

1. shows DC voltage to the chassis with no signal input.
2. —— indicates positive B power supply.
3. – – – indicates negative B power supply.
4. indicates signal path.
5. When replacing the parts in the darkned area ( ) and those marked with △, be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram.
   The design and contents are subject to change without notice.

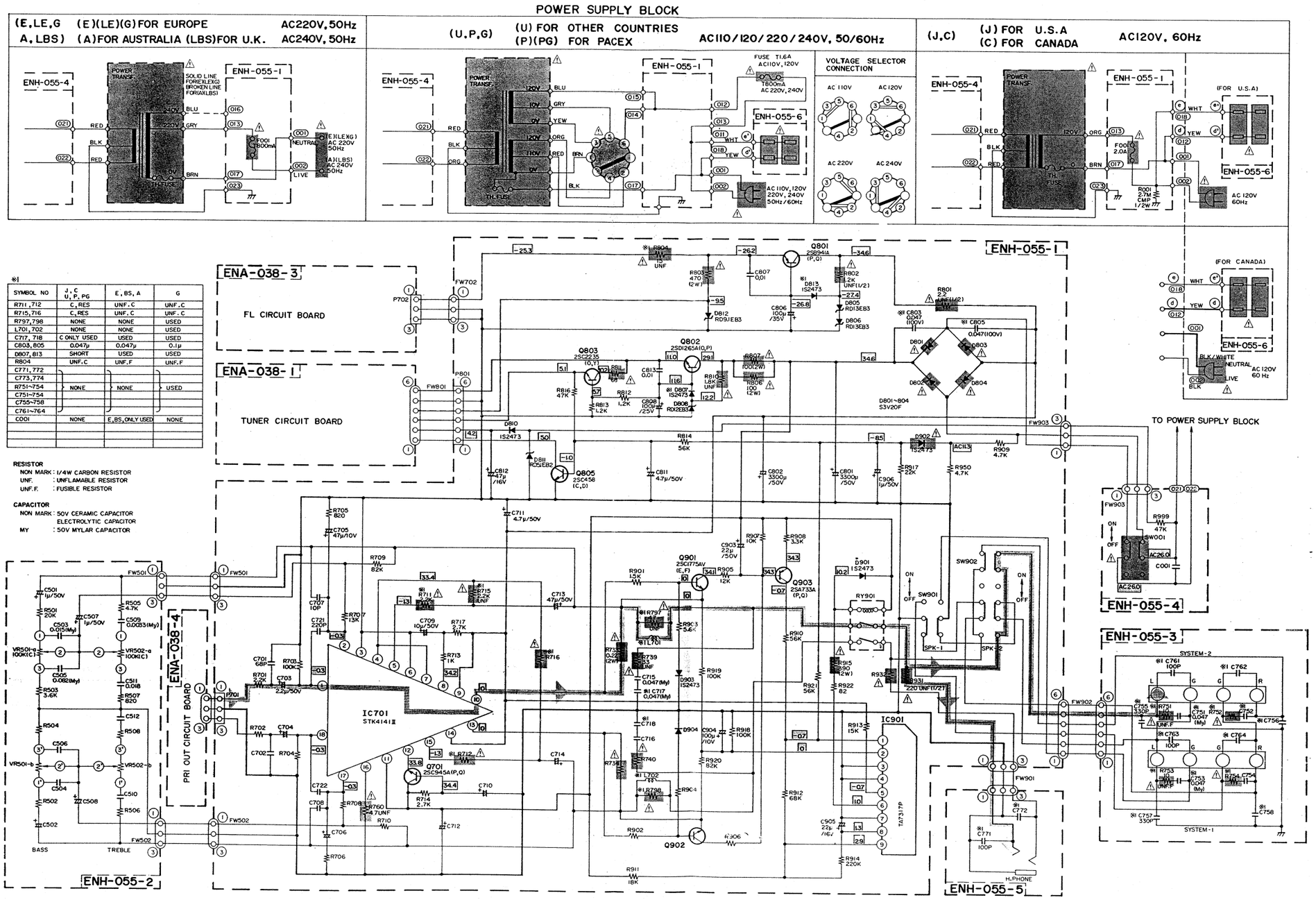
6-(2) R-X110L Tunner Section



Notes:

1. ▒▒ shows DC voltage to the chassis with no signal input.
2. —— indicates positive B power supply.
3. – – – indicates negative B power supply.
4. ▒▒ indicates signal path.
5. When replacing the parts in the darkned area (■■) and those marked with ⚠, be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram.
   The design and contents are subject to change without notice.

6-(3) R-X110/R-X110L Amplifier Section



※1

SYMBOL NO	J, C U, P, PG	E, BS, A	G
R711, 712	C, RES	UNF. C	UNF. C
R715, 716	C, RES	UNF. C	UNF. C
R797, 798	NONE	NONE	USED
L701, 702	NONE	NONE	USED
C717, 718	C ONLY USED	USED	USED
C803, 805	0.047μ	0.047μ	0.1μ
D807, 813	SHORT	USED	USED
R804	UNF. C	UNF. F	UNF. F
C771, 772			
C773, 774			
R751~754	NONE	NONE	USED
C751~754			
C755~758			
C761~764			
C001	NONE	E, BS, ONLY USED	NONE

RESISTOR
NON MARK : 1/4W CARBON RESISTOR
UNF. : UNFLAMABLE RESISTOR
UNF.F. : FUSIBLE RESISTOR

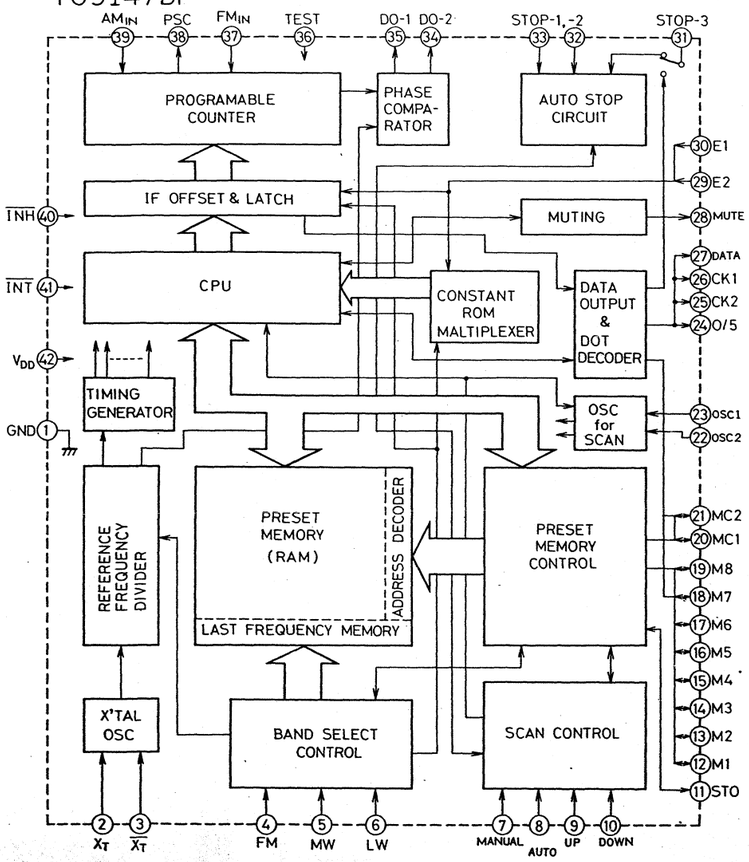
CAPACITOR
NON MARK : 50V CERAMIC CAPACITOR
ELECTROLYTIC CAPACITOR
MY : 50V MYLAR CAPACITOR

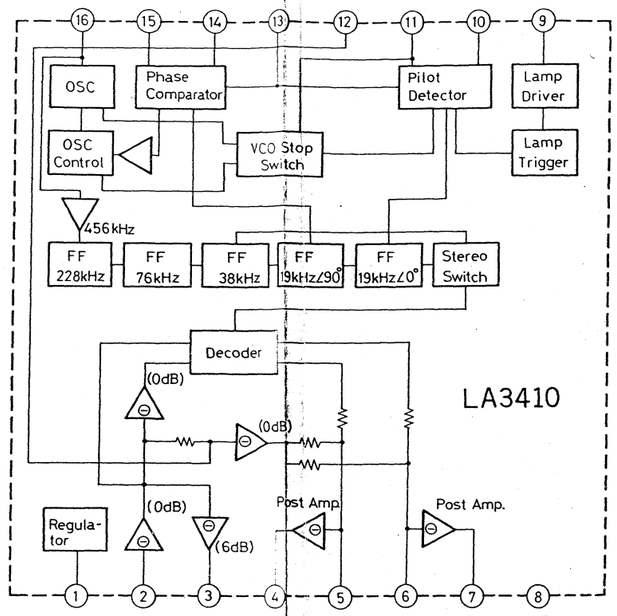
Notes:

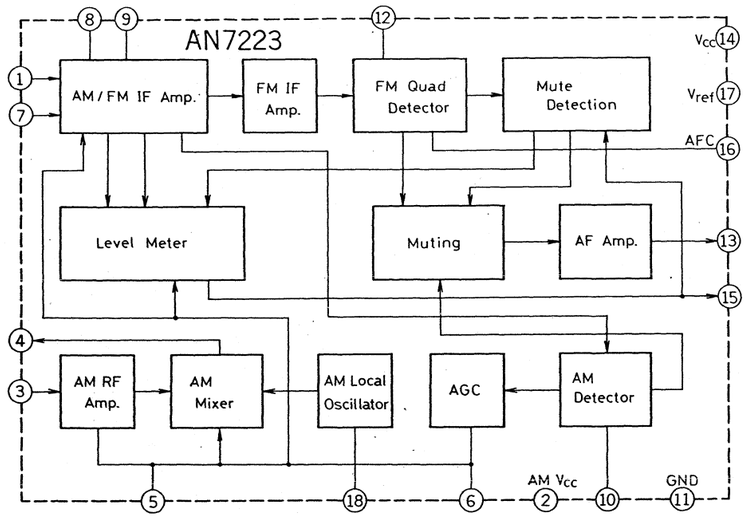
1. ▒▒ shows DC voltage to the chassis with no signal input.
2. ——— indicates positive B power supply.
3. – – – indicates negative B power supply.
4. ▒▒ indicates signal path.
5. When replacing the parts in the darkned area (▒▒) and those marked with △, be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram.
   The design and contents are subject to change without notice.

6-(4) Internal Block Diagram of Major LSI ICs

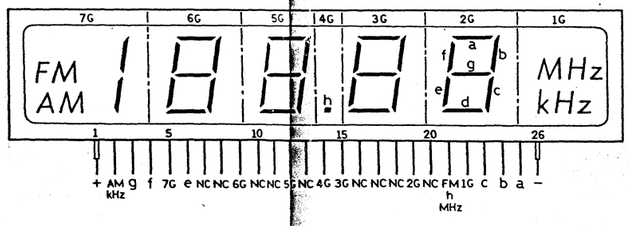
TC9147BP



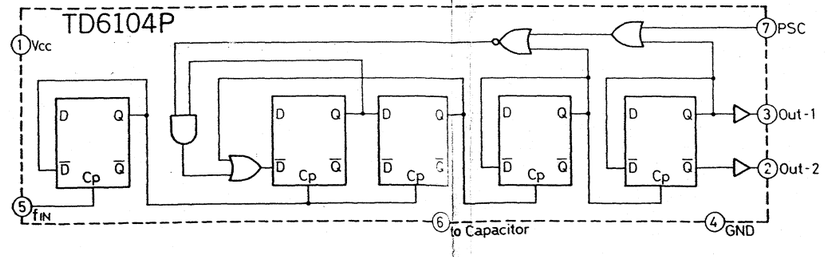




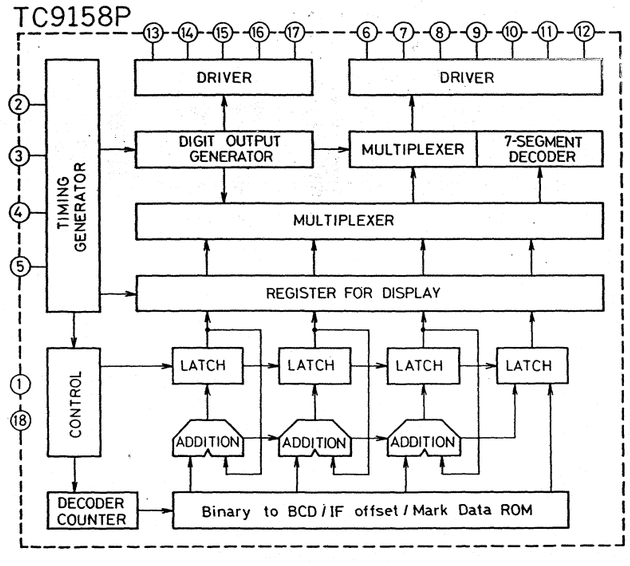
ELU0001-016



TD6104P



TC9158P



– MEMO –

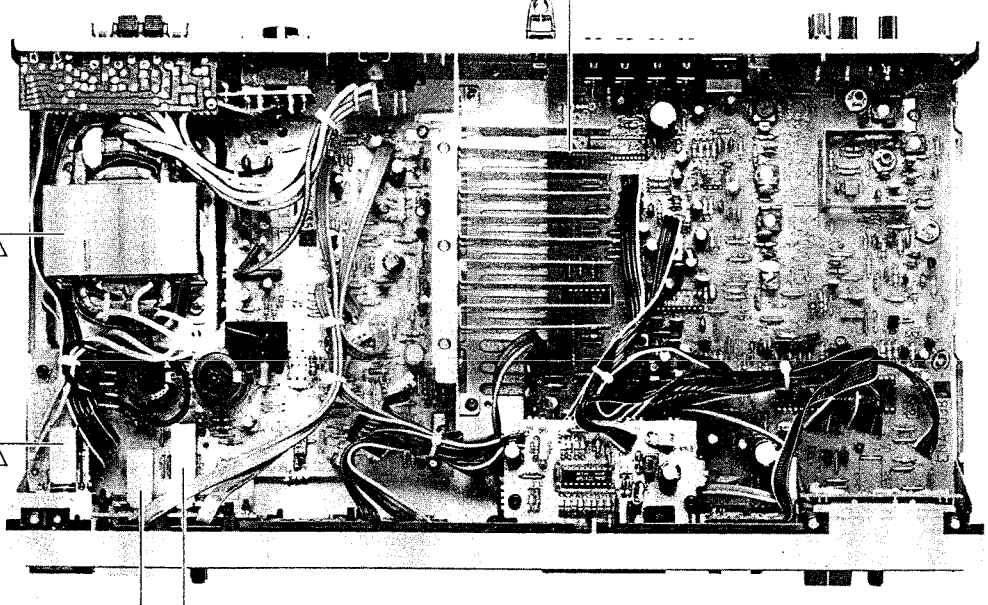
PARTS LIST

Contents

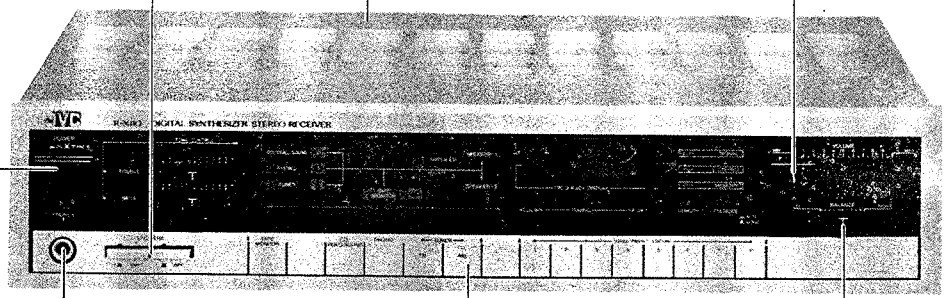
1. Main Parts Locations 2-2
1-(1) Top View 2-2
1-(2) Front View 2-2
1-(3) Rear View 2-2
2. Exploded View and Part Numbers 2-3
3. Printed Circuit Board Ass'y and Parts List 2-6
3-(1) ENA-038☐ Tuner P.C. Board Ass'y 2-6
3-(2) ENH-055☐ Audio P.C. Board Ass'y 2-10
4. Packing Materials and Part Numbers 2-13
5. Accessories List 2-13

1. Main Parts Locations

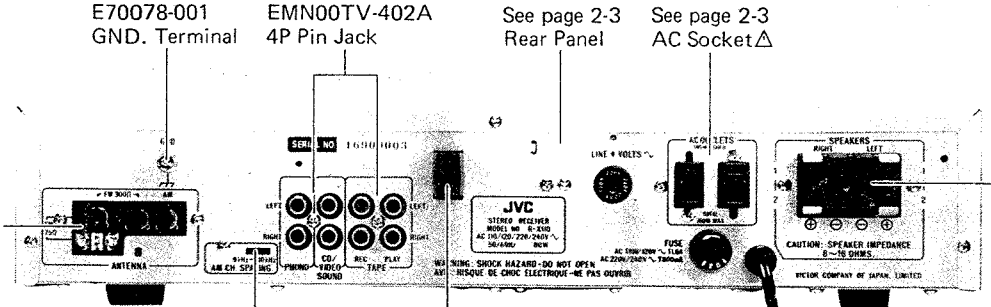
1-(1) Top View



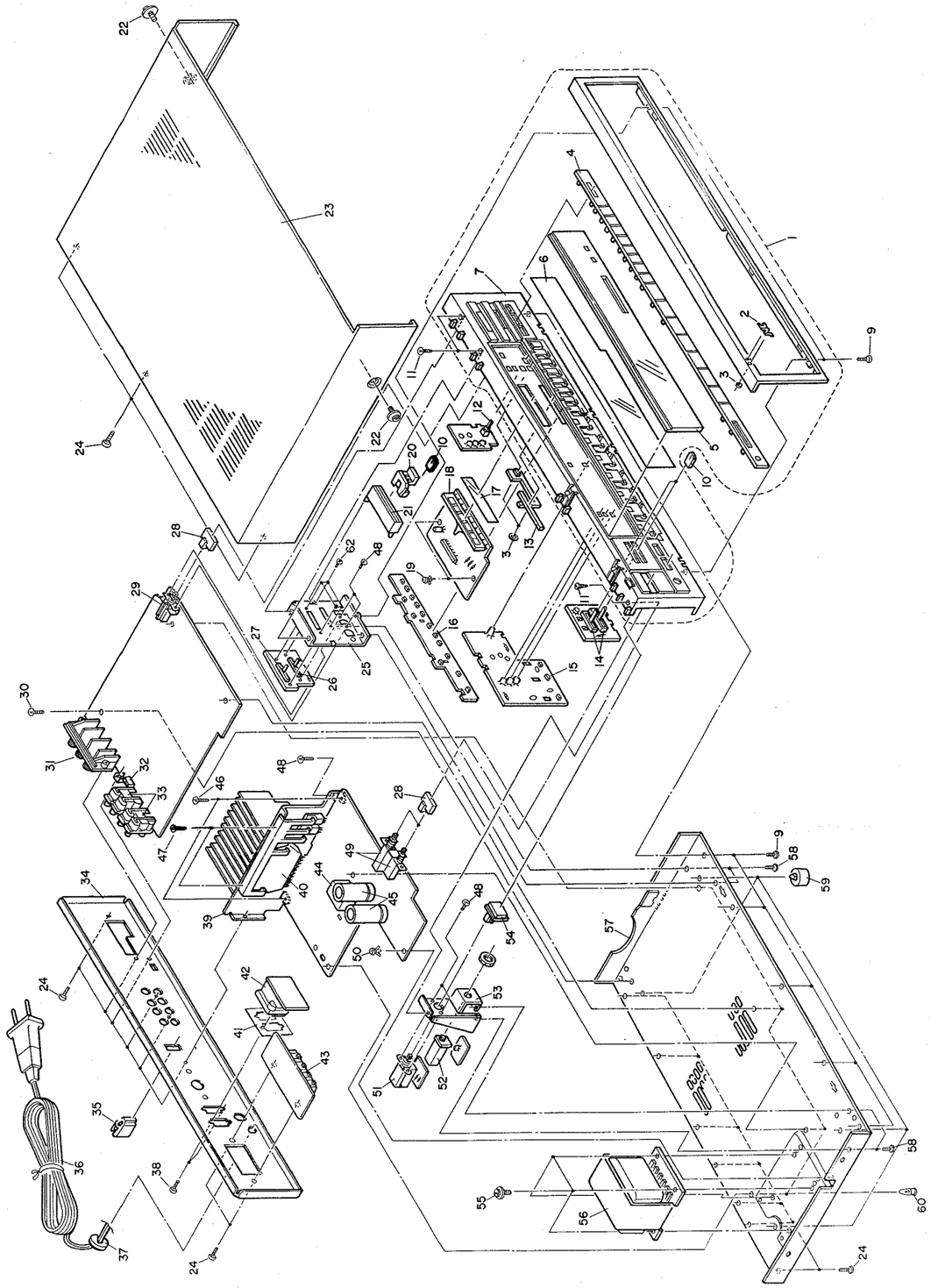
1-(2) Front View



1-(3) Rear View



2. Exploded Views and Part Numbers



⚠	No.	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-RX110J	Front Panel Ass'y	1	Silver	J,C,P,PG,U
		EFP-RX110BJ	Front Panel Ass'y	1	Black	J,C,P,PG,U
		EFP-RX110E	Front Panel Ass'y	1	Silver	E,A,G
		EFP-RX110BE	Front Panel Ass'y	1	Black	E,A,G
		EFP-RX110LE	Front Panel Ass'y	1	Silver	LE,LBS
		EFP-RX110BLE	Front Panel Ass'y	1	Black	LE,LBS
	2	E70913-002	JVC Mark	1	Silver	
		E70913-001	JVC Mark	1	Black	
	3	E60912-003	Speed Nut	3		
	4	E24942-001	Front Plate	1	Silver	J,C,P,PG,U
		E24942-005	Front Plate	1	Black	J,C,P,PG,U
		E24942-002	Front Plate	1	Silver	E,A,G
		E24942-006	Front Plate	1	Black	E,A,G
		E24942-009	Front Plate	1	Silver	LE,LBS
		E24942-011	Front Plate	1	Black	LE,LBS
	5	E303676-001	Window Screen	1		
	6	E303678-001	Indicator Sheet	1		
	7	E11083-001	Front Base	1		Except LE,LBS
		E11083-002	Front Base	1		LE,LBS
	8	E24940-001	Front Panel	1	Silver	Except LE,LBS
		E24940-005	Front Panel	1	Black	Except LE,LBS
		E24940-002	Front Panel	1	Silver	LE,LBS
		E24940-006	Front Panel	1	Black	LE,LBS
	9	SBSF3008Z	Screw	7	Silver	
		SBSF3008M	Screw	7	Black	
	10	E72113-001	Slide Knob	3		
	11	SBSB3008N	Screw	3		
	12	E72089-001	Push Knob	1		
	13	E72090-001	Push Knob	1		
	14	QVUB01C-E15B	Variable Resistor	2		
	15	ESP0001-011	Push Switch	3		
	16	ESP0001-007	Push Switch	11		
	17	E69230-013	FL Screen	1		J,C
		E70561-014	FL Screen	1		Except J,C
	18	ELU0001-016	FL Tube	1		
	19	E48720-007	Plastic Rivet	2		
	20	E303680-001	Slide Knob	1		
	21	E303681-001	Volume Escucheon	1		
	22	E61660-001	Screw	2	Silver	
		E61660-004	Screw	2	Black	
	23	E24633-002	Metal Cover	1	Silver	
		E24633-003	Metal Cover	1	Black	
	24	SBSB3008N	Screw	3	Silver	
		SBSB3008M	Screw	3	Black	
	25	E72097-001	Bracket	1		
	26	QVWA01W-EF5C	Variable Resistor	1		
	27	QVUB01B-EF5B	Variable Resistor	1		
	28	E71268-001	Push Knob	2		E,A,G,LE,LBS
	29	QST8101-E02	Push Switch	1		E,A,G,LE,LBS
	30	SBST3006Z	Screw	1		
	31	E03572-016	Antenna Terminal	1		Except G
		EMB01YV-201A	Antenna terminal	1		G only
	32	QSS1201-039	Slide Switch	1		U,P,PG
	33	EMN00TV-402A	4P Pin Jack	1		
	34	E24944-001	Rear Panel	1	Silver	J,C
		E24944-005	Rear Panel	1	Black	J,C
		E24944-002	Rear Panel	1	Silver	U,P,PG
		E24944-006	Rear Panel	1	Black	U,P,PG
		E24944-003	Rear Panel	1	Silver	E,A,LE,LBS
		E24944-007	Rear Panel	1	Black	E,A,LE,LBS

△	No.	Part Number	Part Name	Q'ty	Description	Areas
		E24944-004	Rear Panel	1	Silver	G
		E24944-008	Rear panel	1	Black	G
	35	E302334-001	Antenna Holder	1		
△	36	QMP1200-200	Power Cord	1		J
△		QMP1340-200	Power Cord	1		C
△		QMP3900-200	Power Cord	1		E,G,LE
△		QMP2560-244	Power Cord	1		A
△		QMP7600-200	Power Cord	1		U,P,PG
△		QMP9017-008BS	Power Cord	1		LBS
△	37	QHS3876-162	Cord Stopper	1		Except BS
△		QHS3876-162BS	Cord Stopper	1		BS only
	38	SDSB3008N	Screw	2		J,C,U,P,PG
	39	E303213-001	Heat Sink	1		
	40	STK4141MK2	Power Pac	1		
	41	E69589-006	Spacer	1		J only
△	42	QMC0437-002	2P AC Socket	1		J,U,P,PG
△		QMC0440-001	2P AC Socket	1		C
	43	EMB90TV-801A	Speaker Terminal	1		
	44	ESK5D24-218	Relay	1		
	45	QEZ0072-338	Electrolytic Capacitor	2		
	46	SBSB3008N	Screw	2		
	47	SBSE3008Z	Screw	2		
	48	SBST3006Z	Screw	1		
	49	QST8261-E02	Push Switch	1		
	50	E48729-008	Plastic Rivet	1		
	51	QSP2206-001	Push Switch	1		
	52	QMS6302-125	Headphone Jack	1	Silver	
		QMS6302-128	Headphone Jack	1	Black	
	53	E72091-001	Bracket	1		
	54	E72085-002	Push Knob	1		
	55	E65389-002	Screw	4		
△	56	ETP1070-16JA	Power Transformer	1		J
△		ETP1070-16CA	Power Transformer	1		C
△		ETP1070-16FA	Power Transformer	1		U,P,PG
△		ETP1070-16EA	Power Transformer	1		E,G,A,LE
△		ETP1070-16EABS	Power Transformer	1		LBS
	57	E10949-003	Chassis Base	1		
	58	SBSB3008N	Screw	2		
	59	E301258-002	Foot	4		
	60	E303216-003	Fastener	3		

△:Safety Parts

The Marks for Designated Areas

J..... U.S.A.
C..... Canada
A..... Autsralia
E,LE..... Europe
G..... West Germany
P,PG..... U.S.Military Market
LBS..... U.K.
U..... Other Countries

3. Printed Circuit Board Ass'y and Parts List

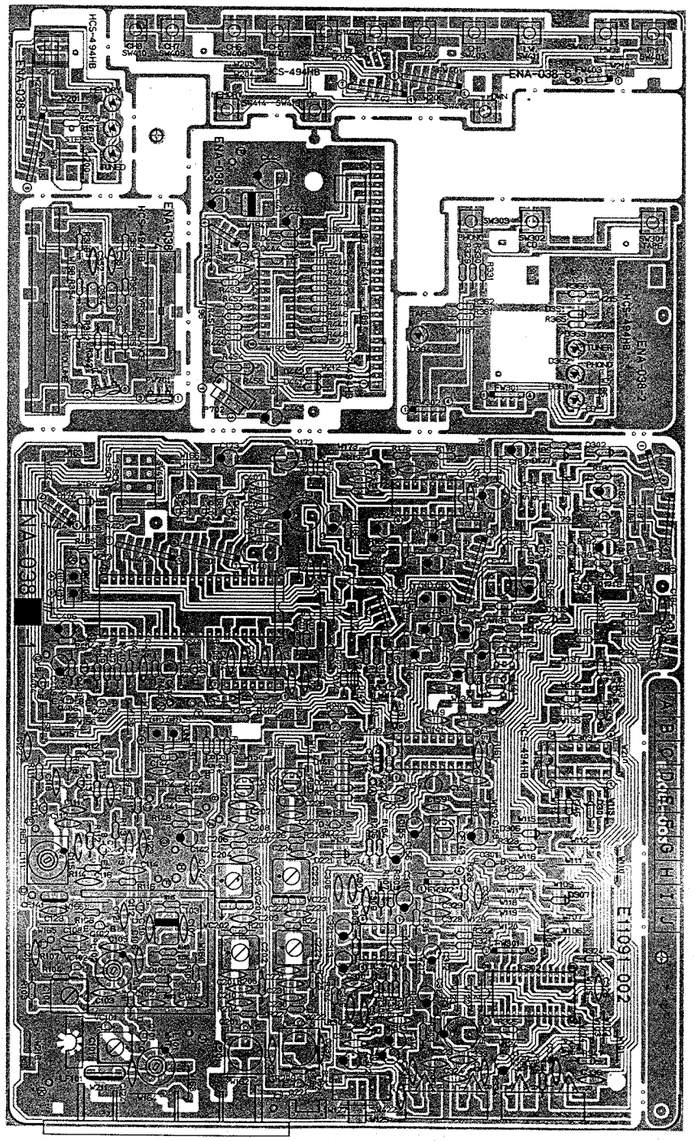
3-(1) ENA-038☐ Tuner P. C. Board Ass'y

Note: ENA-038☐ varies according to the areas employed. See note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Aseas
ENA-038 [A]	U.S.A. & Canada
ENA-038 [B]	U.S. Military & Other Countries
ENA-038 [C]	Europe & Australia
ENA-038 [D]	Europe & U.K. with LW
ENA-038 [E]	West Germany

Note (2)
The symbols (赤、黒、白 ..... etc.) on P.C. Board surface are factory process only.



Transistors

⚠	Item	Part Number	Description		Area
				Maker	
	Q101	2SK168(F)	F.E.T.		
	Q102	2SC535(B,C)	Silicon	Hitachi	
	Q111	2SC461(B,C)	Silicon	Hitachi	
	Q112	2SK161(GR)	F.E.T.	Toshiba	C
	Q112	2SK161(GR)	F.E.T.	Toshiba	D
	Q112	2SK161(GR)	F.E.T.	Toshiba	E
	Q113	2SK161(GR)	F.E.T.	Toshiba	
	Q142	2SC535(B,C,)	Silicon	Hiatchi	
	Q143	2SC458(C,D)	Silicon	Hitachi	
	Q144	2SK301(Q,R)	F.E.T.		
	Q171	2SD655(E,F)	Silicon	Hitachi	
	Q172	2SD655(E,F)	Silicon	Hitachi	
	Q201	2SK301(Q,R)	F.E.T.		D
	Q202	2SK301(Q,R)	F.E.T.		D
	Q221	2SD655(E,F)	Silicon	Hitachi	D
	Q222	2SK301(Q,R)	F.E.T.		
	Q223	2SK301(Q,R)	F.E.T.		D
	Q301	DTA144YN	Silicon	Rohm	
	Q302	DTA144YN	Silicon	Rohm	
	Q401	DTC144YN	Silicon	Rohm	
	Q402	DTC144YN	Silicon	Rohm	
	Q403	DTC144YN	Silicon	Rohm	D
	Q404	DTA144YN	Silicon	Rohm	
	Q405	DTA144YN	Silicon	Rhom	
	Q406	DTA144YN	Silicon	Rhom	D
	Q407	2SK301(Q1)	F.E.T.		
	Q408	2SC458(C,D)	Silicon	Hitachi	

ICs

⚠	Item	Part Number	Description		Area
				Maker	
	IC141	AN7223		Matsushita	
	IC171	LA3410			
	IC301	NJM4558D-D		JRC	
	IC302	LC7815H		Sanyo	
	IC303	TC4016B		Toshiba	
	IC401	TC9147BP			
	IC402	TD6104P			
	IC441	TC9158P			

Diodes

⚠	Item	Part Number	Description		Area
				Maker	
	D101	1S2473	Silicon	Rohm	
	D141	1S2473	Silicon	Rohm	
	D142	1S2473	Silicon	Rohm	D
	D143	1S2473	Silicon	Rohm	D
	D171	1S2473	Silicon	Rohm	
	D172	1S2473	Silicon	Rohm	
	D173	1S2473	Silicon	Rohm	
	D174	1S2473	Silicon	Rohm	
	D175	1S2473	Silicon	Rohm	
	D176	1S2473	Silicon	Rohm	
	D177	1S2473	Silicon	Rohm	
	D201	1S2473	Silicon	Rohm	
	D221	1S2473	Silicon	Rohm	D
	D301	1S2473	Silicon	Rohm	
	D302	1S2473	Silicon	Rohm	
	D303	1S2473	Silicon	Rohm	
	D304	1S2473	Silicon	Rohm	
	D306	RD2.7EB2	Zener	NEC	
	D307	RD6.8EB3	Zener	NEC	
	D351	1S2473	Silicon	Rohm	
	D361	SLR-55DC50F	L.E.D.	Rohm	
	D362	SLR-55DC50F	L.E.D.	Rohm	
	D363	SLR-55DC50F	L.E.D.	Rohm	
	D364	SLR-55VC50F	L.E.D.	Rohm	
	D401	1S2473	Silicon	Rohm	
	D402	1S2473	Silicon	Rohm	
	D421	SLR-55VC50F	L.E.D.	Rohm	
	D422	SLR-55VC50F	L.E.D.	Rohm	
	D423	SLR-55VC50F	L.E.D.	Rohm	
	D441	1S2473	Silicon	Rohm	D
	D442	1S2473	Silicon	Rohm	D
	D443	RD2.7EB2	Zener	NEC	
	D444	RD2.7EB2	Zener	NEC	
	VC101	SVC202(AB)	V.cap		
	VC102	SVC202(AB)	V.cap		
	VC111	SVC202(AB)	V.cap		
	VC201	KV1236Z	V.cap		D
	VC202	KV1236Z	V.cap		D
	VC221	KV1236Z	V.cap		
	VC222	KV1236Z	V.cap		

Coils

⚠	Item	Part Number	Description	Area
	L101	EQR2304-005	OSC Coil	A
	L101	EQR2304-005	OSC Coil	B
	L101	EQR2304-005	OSC Coil	C
	L101	EQR2304-005	OSC Coil	D
	L101	EQR2304-004	RF Coil	E
	L102	EQR2304-006	RF Coil	
	L103	EQL3001-1R5KY	RF Coil	
	L111	EQR2404-004	RF Coil	
	L201	EQR1111-005	RF Coil	D
	L202	EQR1307-004	LW OSC Coil	D
	L221	EQR1111-006	RF Coil	
	L222	EQR1207-006	RF Coil	
	L441	EQL3001-102KY	Inductor	

Capacitors

⚠	Item	Part Number	Description			Area
	C101	QAT2001-001			Trimmer	
	C102	QCF31HP-103	0.01MF	50V	Ceramic	
	C103	QCS31HJ-5R0	5.0pF	50V	Ceramic	
	C104	QAT2001-001			Trimmer	
	C105	QCS31HJ-4R0	4.0pF	50V	Ceramic	
	C107	QCS31HJ-151	150pF	50V	Ceramic	
	C108	QCF31HP-103	0.01MF	50V	Ceramic	
	C109	QCF31HP-103	0.01MF	50V	Ceramic	
	C110	QCS31HJ-7R0	7.0pF	50V	Ceramic	C
	C110	QCS31HJ-7R0	7.0pF	50V	Ceramic	D
	C110	QCS31HJ-7R0	7.0pF	50V	Ceramic	E
	C111	QCT25UJ-100	10pF	50V	Ceramic	
	C112	QCS31HJ-7R0	7.0pF	50V	Ceramic	
	C113	QCT25UJ-220	22pF	50V	Ceramic	
	C114	QCS31HJ-4R0	4.0pF	50V	Ceramic	C
	C114	QCS31HJ-4R0	4.0pF	50V	Ceramic	D
	C114	QCS31HJ-4R0	4.0pF	50V	Ceramic	E
	C115	QCF31HP-103	0.01MF	50V	Ceramic	
	C116	QCT25UJ-100	10	50V	Ceramic	
	C117	QCF31HP-103	0.01MF	50V	Ceramic	
	C118	QCS31HJ-2R0	2.0pF	50V	Ceramic	
	C119	QCS31HJ-221	220pF	50V	Ceramic	
	C120	QCF31HP-223	0.022MF	50V	Ceramic	
	C121	QCS31HJ-3R0	3.0pF	50V	Ceramic	A
	C121	QCS31HJ-3R0	3.0pF	50V	Ceramic	B
	C123	QCF31HP-103	0.01MF	50V	Ceramic	
	C141	QCF31HP-223	0.022MF	50V	Ceramic	
	C144	QCF31HP-223	0.022MF	50V	Ceramic	
	C145	QET61EM-106	10MF	25V	Electrolytic	
	C146	QET61AM-476	47MF	10V	Electrolytic	
	C147	QET61HM-225	2.2MF	50V	Electrolytic	
	C148	QET61CM-476	47MF	16V	Electrolytic	
	C149	QCF31HP-223	0.022MF	50V	Ceramic	
	C150	QCF31HP-223	0.022MF	50V	Ceramic	
	C151	QET61EM-106	10MF	25V	Electrolytic	
	C152	QCS31HJ-271	270pF	50V	Ceramic	A
	C152	QCS31HJ-271	270pF	50V	Ceramic	B
	C152	QCS31HJ-151	150pF	50V	Ceramic	C
	C152	QCS31HJ-151	150pF	50V	Ceramic	D
	C152	QCS31HJ-151	150pF	50V	Ceramic	E
	C153	QCF31HP-223	0.022MF	50V	Ceramic	
	C154	QCF31HP-223	0.022MF	50V	Ceramic	
	C155	QET61CM-476	47MF	16V	Electrolytic	
	C156	QET61CM-476	47MF	16V	Electrolytic	
	C157	QEN61HM-475	4.7MF	50V	Non Pole	
	C158	QET61EM-106	10MF	25V	Electrolytic	
	C159	QCF31HP-223	0.022MF	50V	Ceramic	
	C160	QCF31HP-223	0.022MF	50V	Ceramic	
	C161	QCS31HJ-101	100pF	50V	Ceramic	
	C171	QET61HM-105	1MF	50V	Electrolytic	
	C172	QET61HM-474	0.47MF	50V	Electrolytic	
	C173	QET61EM-106	10MF	25V	Electrolytic	
	C174	QET61HM-105	1MF	50V	Electrolytic	
	C175	QCS31HJ-821	820pF	50V	Ceramic	A
	C175	QCS31HJ-821	820pF	50V	Ceramic	B
	C175	QCS31HJ-681	680pF	50V	Ceramic	C
	C175	QCS31HJ-681	680pF	50V	Ceramic	D
	C175	QCS31HJ-681	680pF	50V	Ceramic	E
	C176	QCS31HJ-821	820pF	50V	Ceramic	A
	C176	QCS31HJ-821	820pF	50V	Ceramic	B
	C176	QCS31HJ-681	680pF	50V	Ceramic	C
	C176	QCS31HJ-681	680pF	50V	Ceramic	D
	C176	QCS31HJ-681	680pF	50V	Ceramic	E
	C177	QET61CM-107	100mF	16V	Electrolytic	
	C178	QCT61CM-226	22MF	16V	Electrolytic	E
	C179	QCF31HP-473	0.047MF	50V	Ceramic	
	C181	QET61HM-475	4.7MF	50V	Electrolytic	
	C182	QET61HM-475	4.7MF	50V	Electrolytic	
	C183	QCY31HK-222	2200pF	50V	Ceramic	
	C184	QCY31HK-222	2200pF	50V	Ceramci	
	C185	QET61EM-226	22MF	25V	Electrolytic	
	C186	QET61EM-226	22MF	25V	Electrolytic	

apacitors

⚠	Item	Part Number	Description			Area
	C221	QCS31HJ-5R0	5.0pF	50V	Ceramic	
	C222	QAT2001-005			Trimmer	
	C223	QCC31EM-473	0.047	25V	Ceramic	
	C224	QCF31HP-223	0.022MF	50v	Ceramic	
	C225	QAT2001-005			Trimmer	
	C226	QCT25CH-150	15pF	50V	Ceramic	
	C227	QCS31HJ-270	27pF	50V	Ceramic	
	C228	QFP31HJ-471	470pF	50V	Poly	
	C231	QCF31Hp-223	0.022MF	50V	Ceramic	
	C232	QCF31HP-223	0.022MF	50V	Ceramic	
	C301	QET61HM-475	4.7MF	50V	Electrolytic	
	C302	QET61HM-475	4.7MF	50V	Electrolytic	
	C305	QCY31HK-182	1800pF	50V	Ceramic	
	C306	QCY31HK-182	1800pF	50V	Ceramic	
	C307	QCY31HK-682	6800pF	50V	Ceramic	
	C308	QCY31HK-682	6800pF	50V	Ceramic	
	C309	QCS31HJ-560	56pF	50V	Ceramic	A
	C309	QCS31HJ-560	56pF	50V	Ceramic	B
	C309	QCS31HJ-560	56pF	50V	Ceramic	C
	C309	QCS31HJ-560	56pF	50V	Ceramic	D
	C309	QCS31HJ-331	330pF	50V	Ceramic	E
	C310	QCS31HJ-560	56pF	50V	Ceramic	A
	C310	QCS31HJ-560	56pF	50V	Ceramic	B
	C310	QCS31HJ-560	56pF	50V	Ceramic	C
	C310	QCS31HJ-560	56pF	50V	Ceramic	D
	C310	QCS31HJ-331	330pF	50V	Ceramic	E
	C311	QET61HM-475	4.7MF	50V	Electrolytic	
	C312	QET61HM-475	4.7MF	50V	Electrolytic	
	C313	QET61AM-476	47MF	10V	Electrolytic	
	C314	QET61AM-476	47MF	10V	Electrolytic	
	C321	QET61CM-226	22MF	16V	Electrolytic	
	C322	QET61CM-226	22MF	16V	Electrolytic	
	C323	QCF31HP-223	0.022MF	50V	Ceramic	
	C324	QCF31HP-223	0.022MF	50V	Ceramic	
	C325	QET51CM-108	1000mF	16V	Electrolytic	
	C326	QCF31HP-223	0.022MF	50V	Ceramic	
	C327	QET61HM-105	1MF	50V	Electrolytic	
	C328	QCS31HJ-101	100pF	50V	Ceramic	
	C329	QCS31HJ-101	100pF	50v	Ceramic	
	C330	QCF31HP-102	1000pF	50V	Ceramic	
	C331	QCS31HJ-331	330pF	50V	Ceramic	E
	C332	QCS31HJ-331	330pF	50V	Ceramic	E
	C333	QCS31HJ-331	330pF	50V	Ceramic	E
	C334	QCS31HJ-331	330pF	50V	Ceramic	E
	C335	QCS31HJ-331	330pF	50V	Ceramic	E
	C336	QCS31HJ-331	330pF	50V	Ceramic	E
	C351	QCS31HJ-181	180pF	50V	Ceramic	
	C352	QCS31HJ-181	180pF	50V	Ceramic	
	C353	QFN31HK-183	0.018MF	50V	Mylar	
	C354	QFN31HK-183	0.018	50V	Mylar	
	C401	QCF31Hp-103	0.01MF	50V	Ceramic	
	C402	QCF31HP-103	0.01MF	50V	Ceramic	
	C403	QCF31HP-103	0.01MF	50V	Ceramic	
	C404	QCF31HP-103	0.01MF	50V	Ceramic	
	C405	QET61HM-105	1MF	50V	Electrolytic	
	C406	QET61HM-105	1MF	50V	Electrolytic	
	C407	QCF31HP-103	0.01MF	50V	Ceramic	D
	C408	QCF31HP-102	1000pF	50V	Ceramic	
	C409	QCF31HP-102	1000pF	50V	Ceramic	
	C410	QCS31HJ-100	10pF	50V	Ceramic	
	C411	QCS31HJ-100	10pF	50V	Ceramic	
	C412	QCF31HP-103	0.01MF	50V	Ceramic	
	C413	QET50JM-228	2200MF	6.3V	Electrolytic	
	C414	QEN61HM-225	2.2MF	50V	Non Pole	A
	C414	QEN61HM-225	2.2MF	50V	Non Pole	B
	C414	QEN61HM-225	2.2MF	50V	Non Pole	C
	C414	QEN61HM-474	0.47	50V	Non Pole	D
	C414	QEN61HM-225	2.2MF	50V	Non Pole	E
	C415	QCS31HJ-101	100pF	50V	Ceramc	A
	C415	QCS31HJ-101	100pF	50V	Ceramc	B
	C415	QCS31HJ-101	100pF	50V	Ceramc	C
	C415	QCS31HJ-101	100pF	50V	Ceramc	E
	C415	QCY31HK-821	820pF	50V	Ceramic	D
	C441	QET61EM-106	10MF	25V	Electrolytic	
	C442	QCF31HP-472	47000pF	50V	Ceramic	
	C443	QET50JM-477	470MF	6.3V	Ceramic	
	C444	QET61AM-476	47MF	10V	Electrolytic	
	C445	QET61HM-476	47MF	50V	Electrolytic	

Resistors

⚠	Item	Part Number	Description			Area
	R102	QRD141J-220S	22	1/4W	Carbon	
	R103	QRD141J-473S	47k	1/4W	Carbon	
	R104	QRD141J-473S	47K	1/4W	Carbon	
	R105	QRD141J-392S	3.9K	1/4W	Carbon	
	R106	QRD141J-223S	22K	1/4W	Carbon	
	R107	QRD141J-102S	1K	1/4W	Carbon	
	R108	QRD141J-561S	560	1/4W	Carbon	
	R109	QRD141J-221S	220	1/4W	Carbon	
	R111	QRD141J-472S	4.7K	1/4W	Carbon	
	R112	QRD141J-682S	.8K	1/4W	Carbon	
	R113	QRD141J-103S	10K	1/4W	Carbon	
	R114	QRD141J-122S	1.2K	1/4W	Carbon	
	R115	QRD141J-331S	330	1/4W	Carbon	C
	R115	QRD141J-331S	330	1/4W	Carbon	D
	R115	QRD141J-331S	330	1/4W	Carbon	E
	R116	QRD141J-104S	100K	1/4W	Carbon	C
	R116	QRD141J-104S	100K	1/4W	Carbon	D
	R116	QRD141J-104S	100K	1/4W	Carbon	E
	R117	QRD141J-121S	120	1/4W	Carbon	
	R118	QRD141J-104S	100K	1/4W	Carbon	
	R119	QRD141J-471S	470	1/4W	Carbon	
⚠	R120	QRD145J-330S	33	1/4W	UNF.Carbon	
	R121	QRD141J-222S	2.2K	1/4W	Carbon	
⚠	R142	QRD145J-330S	33	1/4W	UNF.Carbon	
	R147	QRD141J-103S	10K	1/4W	Carbon	
	R148	QRD141J-682S	6.8K	1/4W	Carbon	
	R150	QRD141J-561S	560	1/4W	Carbon	
	R151	QRD141J-102S	1K	1/4W	Carbon	
	R153	QRD141J-821S	820	1/4W	Carbon	
	R154	QRD141J-823S	82K	1/4W	Carbon	
	R155	QRD141J-153S	15K	1/4W	Carbon	
	R156	QRD141J-473S	47K	1/4W	Carbon	
	R157	QRD141J-1102S	1K	1/4W	Carbon	
	R158	QRD141J-272S	2.7K	1/4W	Carbon	
	R160	QRD141J-331S	330	1/4W	Carbon	
	R161	QRD141J-153S	15K	1/4W	Carbon	
	R162	QRD141J-104S	100K	1/4W	Carbon	
	R163	QRD141J-102S	1K	1/4W	Carbon	
	R164	QRD141J-471S	470	1/4W	Carbon	
	R165	QRD141J-471S	470	1/4W	Carbon	
	R171	QRD141J-102S	1K	1/4W	Carbon	
	R172	QRD141J-823S	82K	1/4W	Carbon	A
	R172	QRD141J-823S	82K	1/4W	Carbon	B
	R172	QVZ3518-224	220K		variable	C
	R172	QVZ3518-224	220K		Variable	D
	R172	QVZ3518-224	220K		Variable	E
	R173	QRD141J-472S	4.7K	1/4W	Carbon	
⚠	R174	QRD145J-680S	68	1/4W	UNF.Carbon	A
⚠	R174	QRD145J-680S	68	1/4W	UNF.Carbon	B
⚠	R174	QRZ0062-680	68	1/4W	Fusible	C
⚠	R174	QRZ0062-680	68	1/4W	Fusible	D
⚠	R174	QRZ0062-680	68	1/4W	Fusible	E
	R175	QRD141J-823S	82K	1/4W	Carbon	
	R176	QRD141J-823S	82K	1/4W	Carbon	
	R179	QRD141J-332S	3.3K	1/4W	Carbon	
	R180	QRD141J-332S	3.3K	1/4W	Carbon	
	R181	QRD141J-103S	10K	1/4W	Carbon	
	R182	QRD141J-103S	10K	1/4W	Carbon	
	R183	QRD141J-682S	6.8K	1/4W	Carbon	
	R184	QRD141J-682S	6.8K	1/4W	Carbon	
	R185	QRD141J-681S	680	1/4W	Carbon	
	R186	QRD141J-103S	10K	1/4W	Carbon	
	R187	QRD141J-103S	10K	1/4W	Carbon	
	R188	QRD141J-273S	27K	1/4W	Carbon	
	R189	QRD141J-273S	27K	1/4W	Carbon	
	R201	QRD141J-103S	10K	1/4W	Carbon	D
	R203	QRD141J-104S	100K	1/4W	Carbon	D
	R204	QRD141J-471S	470	1/4W	Carbon	D
	R205	QRD141J-103S	10K	1/4W	Carbon	D
	R206	QRD141J-103S	10K	1/4W	Carbon	D
	R207	QRD141J-103S	10K	1/4W	Carbon	D
	R208	QRD141J-331S	330	1/4W	Carbon	D
	R209	QRD141J-472S	4.7K	1/4W	Carbon	D
	R221	QRD141J-103S	10K	1/4W	Carbon	
	R223	QRD141J-104S	100K	1/4W	Carbon	
	R224	QRD141J-471S	470	1/4W	Carbon	
	R225	QRD141J-103S	10K	1/4W	Carbon	
	R226	QRD141J-103S	10K	1/4W	Carbon	D
	R227	QRD141J-331S	330	1/4W	Carbon	
	R301	QRD141J-222S	2.2K	1/4W	Carbon	
	R302	QRD141J-222S	2.2K	1/4W	Carbon	
	R303	QRD141J-473S	47K	1/4W	Carbon	
	R304	QRD141J-473S	47K	1/4W	Carbon	
	R305	QRD141J-821S	820	1/4W	Carbon	
	R306	QRD141J-821S	820	1/4W	Carbon	
	R307	QRD141J-393S	39K	1/4W	Carbon	
	R308	QRD141J-393S	39K	1/4W	Carbon	

⚠ Safety parts

Resistors

⚠	Item	Part Number	Description			Area
	R309	QRD141J-474S	470K	1/4W	Carbon	
	R310	QRD141J-474S	470K	1/4W	Carbon	
	R311	QRD141J-104S	100K	1/4W	Carbon	
	R312	QRD141J-104S	100K	1/4W	Carbon	
	R321	QRD141J-181S	180	1/4W	Carbon	
	R322	QRD141J-101S	100	1/4W	Carbon	
	R323	QRD141J-473S	47K	1/4W	Carbon	
	R324	QRD141J-225S	2.2M	1/4W	Carbon	
	R325	QRD141J-104S	100K	1/4W	Carbon	
	R326	QRD141J-103S	10K	1/4W	Carbon	
	R327	QRD141J-104S	100K	1/4W	Carbon	
	R329	QRD141J-103S	10K	1/4W	Carbon	
	R330	QRD141J-103S	10K	1/4W	Carbon	
	R331	QRD141J-103S	10K	1/4W	Carbon	
⚠	R332	QRD145J-470S	47	1/4W	UNF.Carbon	C
⚠	R332	QRD145J-470S	47	1/4W	UNF.Carbon	D
⚠	R332	QRD145J-470S	47	1/4W	UNF.Carbon	E
	R341	QRD141J-332S	3.3K	1/4W	Carbon	
	R342	QRD141J-332S	3.3K	1/4W	Carbon	
	R343	QRD141J-103S	10K	1/4W	Carbon	
	R344	QRD141J-104S	100K	1/4W	Carbon	
	R346	QRD141J-103S	10K	1/4W	Carbon	
	R347	QRD141J-474S	470S	1/4W	Carbon	
	R348	QRD141J-474S	470K	1/4W	Carbon	
	R351	QRD141J-223S	22K	1/4W	Carbon	
	R352	QRD141J-223S	22K	1/4W	Carbon	
	R353	QRD141J-683S	68K	1/4W	Carbon	
	R354	QRD141J-683S	68K	1/4W	Carbon	
	R361	QRD141J-222S	2.2K	1/4W	Carbon	
	R362	QRD141J-152S	1.5K	1/4W	Carbon	
	R365	QRD141J-152S	1.5K	1/4W	Carbon	
	R401	QRD141J-104S	100K	1/4W	Carbon	
	R402	QRD141J-823S	82K	1/4W	Carbon	
	R403	QRD141J-683S	68K	1/4W	Carbon	
	R404	QRD141J-683S	68K	1/4W	Carbon	
	R405	QRD141J-472S	4.7K	1/4W	Carbon	A
	R406	QRD141J-102S	1K	1/4W	Carbon	
	R407	QRD141J-222S	2.2K	1/4W	Carbon	
	R408	QRD141J-152S	1.5K	1/4W	Carbon	A
	R408	QRD141J-152S	1.5K	1/4W	Carbon	B
	R408	QRD141J-152S	1.5K	1/4W	Carbon	C
	R408	QRD141J-152S	1.5K	1/4W	Carbon	E
	R408	QRD141J-682S	6.8K	1/4W	Carbon	D
	R409	QRD141J-271S	270	1/4W	Carbon	
	R410	QRD141J-103S	10K	1/4W	Carbon	
	R411	QRD141J-472S	4.7K	1/4W	Carbon	
	R412	QRD141J-151S	150	1/4W	Carbon	
	R421	QRD141J-472S	4.7K	1/4W	Carbon	C
	R421	QRD141J-472S	4.7K	1/4W	Carbon	D
	R421	QRD141J-472S	4.7K	1/4W	Carbon	E
	R423	QRD141J-222S	2.2K	1/4W	Carbon	
	R441	QRD141J-104S	100K	1/4W	Carbon	
	R442	QRD141J-104S	100K	1/4W	Carbon	
	R443	QRD141J-104S	100K	1/4W	Carbon	
	R444	QRD141J-104S	100K	1/4W	Carbon	
	R445	QRD141J-104S	100K	1/4W	Carbon	
	R446	QRD141J-104S	100K	1/4W	Carbon	
	R448	QRD141J-104S	100K	1/4W	Carbon	
	R449	QRD141J-104S	100K	1/4W	Carbon	
	R450	QRD141J-104S	100K	1/4W	Carbon	
	R451	QRD141J-104S	100K	1/4W	Carbon	
	R452	QRD141J-104S	100K	1/4W	Carbon	
	R453	QRD141J-223S	22K	1/4W	Carbon	
⚠	R454	QRG022J-331AM	330	2W	O.M.Film	A
⚠	R454	QRG022J-331AM	330	2W	O.M.Film	B
⚠	R454	QRG026J-331AF	330	2W	O.M.Film	C
⚠	R454	QRG026J-331AF	330	2W	O.M.Film	D
⚠	R454	QRG026J-331AF	330	2W	O.M.Film	E
	R455	QRD141J-222S	2.2K	1/4W	Carbon	
	VR351	QVUB01B-EF5B			Variable	
	VR352	QVWA01W-EF5C			Variable	

⚠ Safety parts

Others

⚠	Item	Part Number	Description	Area
		E11091-002	Circuit Board	
		E03572-016	Antenna Terminal	A
		E03572-016	Antenna Terminal	B
		E03572-016	Antenna Terminal	C
		E03572-016	Antenna Terminal	D
		EMB01YV-201A	Antenna Terminal	E
		E70225-001	Earth Plate	
		E72108-001	Shield Case	
		E70859-001	Earth Plate	
		EMN00TV-402A	4P Pin Jack	
		EMN00TV-402A	4P Pin Jack	
		E04365-003	FW.Socket	
		E67764-002	Terminal Ass'y	
		E67910-001	Spacer	
		E65654-001	Spacer	C
		E65654-001	Spacer	D
		E65654-001	Spacer	E
	P702	E04365-C03	F.W.Socket	
	LF101	EQF0201-004	Filter	E
	LF171	EQF0102-001	Filter	E
	T141	EQT2140-010	I.F.T.	
	CF141	ECB2123-001R	Ceramic Filter	A
	CF141	ECB2123-001R	Ceramic Filter	B
	CF141	ECB2118-001R	Ceramic Filter	C
	CF141	ECB2118-001R	Ceramic Filter	D
	CF141	ECB2118-001R	Ceramic Filter	E
	CF142	ECB2123-001R	Ceramic Filter	A
	CF142	ECB2123-001R	Ceramic Filter	B
	CF142	ECB2118-001R	Ceramic Filter	C
	CF142	ECB2118-001R	Ceramic Filter	D
	CF142	ECB2118-001R	Ceramic Filter	E
	CF143	ECB1560-001	Ceramic Filter	
	CF171	ECX0000-456KS	Resonator	
	XT401	QCX0007-200KC	X'tal	
	FL441	ELU0001-016	FL Tube	
	SW301	ESP0001-011	Push Switch	
	SW302	ESP0001-011	Push Switch	
	SW303	ESP0001-011	Push Switch	
	SW421	QSP2256-001	Push Switch	
	SW422	QSS1201-039	Push Switch	B
	SW401	ESP0001-007	Push Switch	
	SW402	ESP0001-007	Push Switch	
	SW403	ESP0001-007	Push Switch	
	SW404	ESP0001-007	Push Switch	
	SW405	ESP0001-007	Push Switch	
	SW406	ESP0001-007	Push Switch	
	SW407	ESP0001-007	Push Switch	
	SW408	ESP0001-007	Push Switch	
	SW409	ESP0001-007	Push Switch	
	SW410	ESP0001-007	Push Switch	
	SW411	ESP0001-007	Push Switch	D
	SW412	ESP0001-007	Push Switch	
	SW413	ESP0001-007	Push Switch	
	SW414	ESP0001-007	Push Switch	
	SW415	QST8101-E02	Push Switch	C
	SW415	QST8101-E02	Push Switch	D
	SW415	QST8101-E02	Push Switch	E

3-(2) ENH–055 □ Audio P. C. Board Ass'y

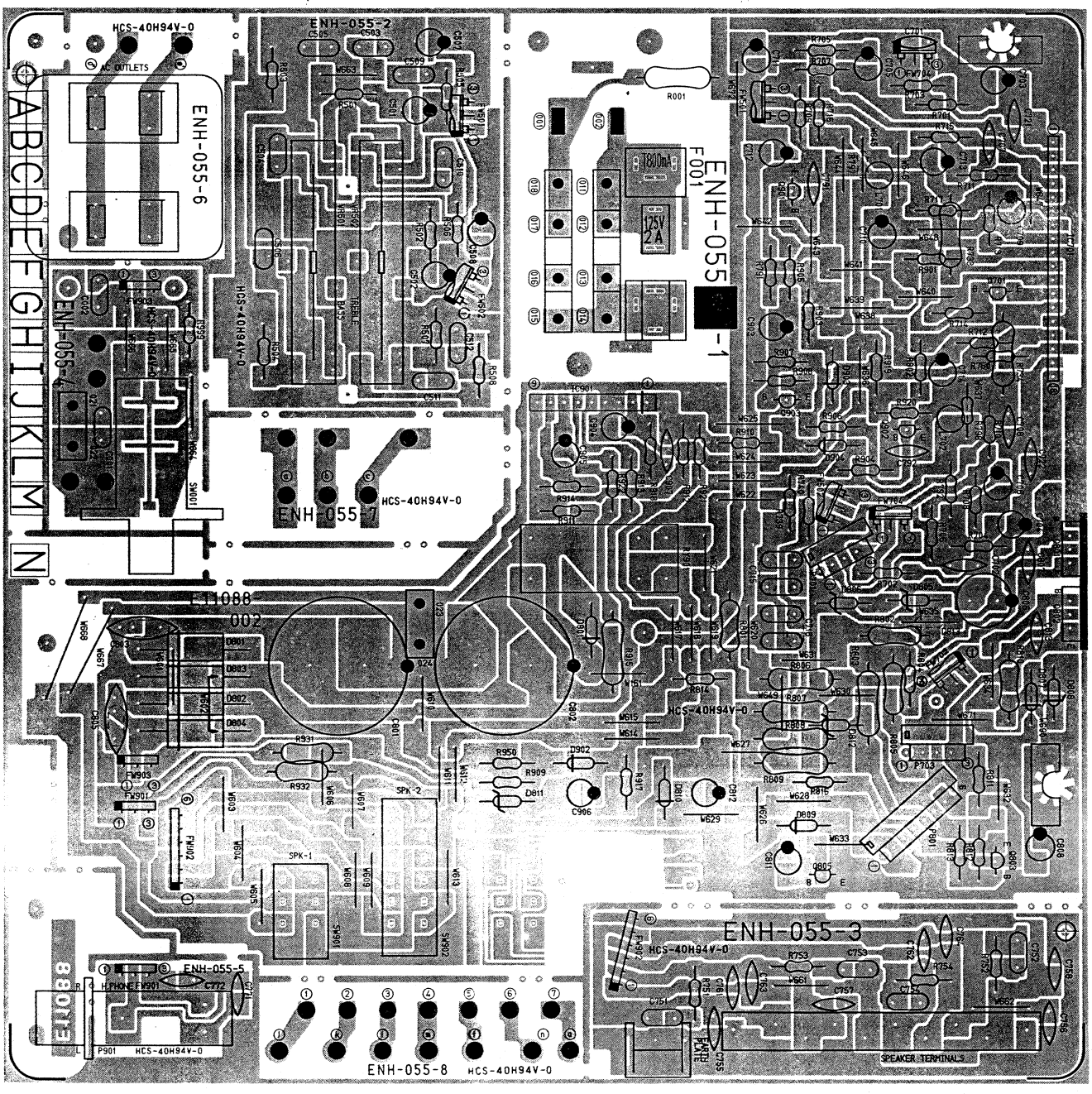
Note: ENH-055□ varies according to the areas employed. See note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Areas
ENH-055 [A] or [H]	U.S.A.
ENH-055 [B] or [I]	Canada
ENH-055 [C] or [J]	U.S. Military Market & Other countries
ENH-055 [D] or [K]	Europe
ENH-055 [EBS] or [LBS]	U.K.
ENH-055 [F] or [M]	West Germany
ENH-055 [G] or [N]	Australia

Note (2)

They symbols (赤、黒、白 . . . . .etc.) on P.C. Board sarface are factory process only.



Transistors

⚠	Item	Part Number	Description	Maker	Area
	Q701	2SC945A(P,Q)	Silicon	NEC	
	Q801	2SB941A(P,Q)	Silicon	Matsushita	
	Q802	2SD1265A(O,P)	Silicon	Matsushita	
	Q803	2SC2235(O,Y)	Silicon	Toshiba	
	Q805	2SC458(C,D)	Silicon	Hitachi	
	Q901	2SC1775AV(E,F)	Silicon	Hitachi	
	Q902	2SC1775AV(E,F)	Silicon	Hitachi	
	Q903	2SA733A(P,Q)	Silicon	NEC	

ICs

⚠	Item	Part Number	Description	Maker	Area
⚠	IC701	STK4141MK2		Sanyo	
⚠	IC901	TA7317P		Toshiba	

⚠ Safety parts

Diodes

⚠	Item	Part Number	Description	Maker	Area
⚠	D801	S3V20F	Silicon	Shindengen	
⚠	D802	S3V20F	Silicon	Shindengen	
⚠	D803	S3V20F	Silicon	Shindengen	
⚠	D804	S3V20F	Silicon	Shindengen	
	D805	RD13EB3	Zener	NEC	
	D806	RD13EB3	Zener	NEC	
	D807	1S2473	Silicon		D
	D807	1S2473	Silicon		EBS
	D807	1S2473	Silicon		F
	D807	1S2473	Silicon		G
	D808	RD12EB3	Zener	NEC	
⚠	D810	1S2473	Silicon		
	D811	RD5.1EB2	Zener	NEC	
	D812	RD9.1EB3	Zener	NEC	
	D813	1S2473	Silicon		D
	D813	1S2473	Silicon		EBS
	D813	1S2473	Silicon		F
	D813	1S2473	Silicon		G
	D901	1S2473	Silicon		
⚠	D902	1S2473	Silicon		
	D903	1S2743	Silicon		
	D904	1S2743	Silicon		

⚠ Safety parts

Capacitors

⚠	Item	Part Number	Description			Area
	C001	QFM32AK-104	0.1MF	100V	Mylar	D
	C001	QFM32AK-104	0.1MF	100V	Mylar	EBS
	C501	QET61HM-105	1MF	50V	Electrolytic	
	C502	QET61HM-105	1MF	50V	Electrolytic	
	C503	QFN31HK-153	0.015MF	50V	Mylar	
	C504	QFN31HK-153	0.015MF	50V	Mylar	
	C505	QFN31HK-823	0.082MF	50V	Mylar	
	C506	QFN31HK-823	0.082MF	50V	Mylar	
	C507	QET61HM-105	1MF	50V	Electrolytic	
	C508	QET61HM-105	1MF	50V	Electrolytic	
	C509	QFN31HK-332	3300pF	50V	Mylar	
	C510	QFN31HK-332	3300pF	50V	Mylar	
	C511	QFN31HK-183	0.018MF	50V	Mylar	
	C512	QFN31HK-183	0.018MF	50V	Mylar	
	C701	QCS31HJ-680	68pF	50V	Ceramic	
	C702	QCS31HJ-680	68pF	50V	Ceramic	
	C703	QET61HM-225	2.2MF	50V	Electrolytic	
	C704	QEH61HM-225	2.2MF	50V	Electrolytic	
	C705	QET61AM-476	47MF	10V	Electrolytic	
	C706	QEH61AM-476	47MF	10V	Electrolytic	
	C707	QCS31HJ-100	10pF	50V	Ceramic	
	C708	QCS31HJ-100	10pF	50V	Ceramic	
	C709	QEH61HM-106	10MF	50V	Electrolytic	
	C710	QET61HM-106	10MF	50V	Electrolytic	
	C711	QETC1HM-475	4.7MF	50V	Electrolytic	
	C712	QETC1HM-475	4.7MF	50V	Electorlytic	
	C713	QET61HM-476	47MF	50V	Electrolytic	
	C714	QET61HM-476	47MF	50V	Electrolytic	
	C715	QFN31HK-473	0.047MF	50V	Mylar	
	C716	QFN31HK-473	0.047MF	50V	Mylar	

Capacitors

⚠	Item	Part Number	Description			Area
	C717	QFN31HK-473	0.047MF	50V	Mylar	B
	C717	QFN31HK-473	0.047MF	50V	Mylar	D
	C717	QFN31HK-473	0.047MF	50V	Mylar	EBS
	C717	QFN31HK-473	0.047MF	50V	Mylar	F
	C717	QFN31HK-473	0.047MF	50V	Mylar	G
	C718	QFN31HK-473	0.047MF	50V	Mylar	B
	C718	QFN31HK-473	0.047MF	50V	Mylar	D
	C718	QFN31HK-473	0.047MF	50V	Mylar	EBS
	C718	QFN31HK-473	0.047MF	50V	Mylar	F
	C718	QFN31HK-473	0.047MF	50V	Mylar	G
	C721	QCS31HJ-221	220pF	50V	Ceramic	
	C722	QCS31HJ-221	220pF	50V	Ceramic	
	C751	QFN31HK-473	0.047MF	50V	Mylar	F
	C752	QFN31HK-473	0.047MF	50V	Mylar	F
	C753	QFN31HK-473	0.047MF	50V	Mylar	F
	C754	QFN31HK-473	0.047MF	50V	Mylar	F
	C755	QCS31HJ-331	330pF	50V	Ceramic	F
	C756	QCS31HJ-331	330pF	50V	Ceramic	F
	C757	QCS31HJ-331	330pF	50V	Ceramic	F
	C758	QCS31HJ-331	330pF	50V	Ceramic	F
	C761	QCS31HJ-101	100pF	50V	Ceramic	F
	C762	QCS31HJ-101	100pF	50V	Ceramic	F
	C763	QCS31HJ-101	100pF	50V	Ceramic	F
	C764	QCS31HJ-101	100pF	50V	Ceramic	F
	C771	QCS31HJ-101	100pF	50V	Ceramic	F
	C772	QCS31HJ-101	100pF	50V	Ceramic	F
	C801	QEZ0072-338	3300MF		Electrolytic	
	C802	QEZ0072-338	3300MF		Electrolytic	
	C803	QFM32AK-473	0.047	100V	Mylar	A
	C803	QFM32AK-473	0.047	100V	Mylar	B
	C803	QFM32AK-473	0.047	100V	Mylar	C
	C803	QFM32AK-473	0.047	100V	Mylar	D
	C803	QFM32AK-473	0.047	100V	Mylar	EBS
	C803	QFM32AK-473	0.047	100V	Mylar	G
	C803	QFM32AK-104	0.1MF	100V	Mylar	F
	C805	QFM32AK-473	0.047	100V	Mylar	A
	C805	QFM32AK-473	0.047	100V	Mylar	B
	C805	QFM32AK-473	0.047	100V	Mylar	C
	C805	QFM32AK-473	0.047	100V	Mylar	D
	C805	QFM32AK-473	0.047	100V	Mylar	EBS
	C805	QFM32AK-473	0.047	100V	Mylar	G
	C805	QFM32AK-104	0.1MF	100V	Mylar	F
	C806	QEH51VM-107	100MF	35V	Electrolytic	
	C807	QCF31HP-103	0.01MF	50V	Ceramic	
	C808	QETC1EM-107	100MF	25V	Electrolytic	
	C811	QETC1HM-475	4.7MF	50V	Electrolytic	
	C812	QETC1CM-476	47MF	16V	Electrolytic	
	C813	QCF31HP-103	0.01MF	50V	Ceramic	
	C903	QETC1HM-226	22MF	50V	Electrolytic	
	C904	QETC1AM-107	100MF	10V	Electrolytic	
	C905	QETC1CM-226	22MF	16V	Electrolytic	
	C906	QETC1HM-105	1MF	50V	Electrolytic	

Resistors

⚠	Item	Part Number	Description			Area
⚠	R001	QRC128K-275EM	2.7M	1/2W	Composi	A
⚠	R001	QRC128K-275EM	2.7M	1/2W	Composi	B
	R501	QRD141J-203S	20K	1/4W	Carbon	
	R502	QRD141J-203S	20K	1/4W	Carbon	
	R503	QRD141J-362S	3.6K	1/4W	Carbon	
	R504	QRD141J-362S	3.6K	1/4W	Carbon	
	R505	QRD141J-472S	4.7K	1/4W	Carbon	
	R506	QRD141J-472S	4.7K	1/4W	Carbon	
	R507	QRD141J-821S	820	1/4W	Carbon	
	R508	QRD141J-821S	820	1/4W	Carbon	
	R701	QRD141J-222S	2.2K	1/4W	Carbon	
	R702	QRD141J-222S	2.2K	1/4W	Carbon	
	R703	QRD141J-104S	100K	1/4W	Carbon	
	R704	QRD141J-104S	100K	1/4W	Carbon	
	R705	QRD141J-821S	820	1/4W	Carbon	
	R706	QRD141J-821S	820	1/4W	Carbon	
	R707	QRD141J-133S	13K	1/4W	Carbon	
	R708	QRD141J-133S	13K	1/4W	Carbon	
	R709	QRD141J-823S	82K	1/4W	Carbon	
	R710	QRD141J-823S	82K	1/4W	Carbon	
⚠	R711	QRD145J-222S	2.2K	1/4W	UNF.Carbon	D
⚠	R711	QRD145J-222S	2.2K	1/4W	UNF.Carbon	EBS
⚠	R711	QRD145J-222S	2.2K	1/4W	UNF.Carbon	F
⚠	R711	QRD145J-222S	2.2K	1/4W	UNF.Carbon	G
⚠	R711	QRD141J-222S	2.2K	1/4W	Carbon	A
	R711	QRD141J-222S	2.2K	1/4W	Carbon	B
	R711	QRD141J-222S	2.2K	1/4W	Carbon	C
⚠	R712	QRD145J-222S	2.2K	1/4W	UNF.Carbon	D
⚠	R712	QRD145J-222S	2.2K	1/4W	UNF.Carbon	EBS
⚠	R712	QRD145J-222S	2.2K	1/4W	UNF.Carbon	F

⚠ Safety Parts

Resistors

⚠	Item	Part Number	Description			Area
	R712	QRD145J-222S	2.2K	1/4W	UNF.Carbon	G
	R712	QRD141J-222S	2.2K	1/4W	Carbon	A
	R712	QRD141J-222S	2.2K	1/4W	Carbon	B
	R712	QRD141J-222S	2.2K	1/4W	Carbon	C
	R713	QRD141J-102S	1K	1/4W	Carbon	
	R714	QRD141J-272S	2.7K	1/4W	Carbon	
⚠	R715	QRD145J-222S	2.2K	1/4W	UNF.Carbon	D
⚠	R715	QRD145J-222S	2.2K	1/4W	UNF.Carbon	EBS
⚠	R715	QRD145J-222S	2.2K	1/4W	UNF.Carbon	F
⚠	R715	QRD145J-222S	2.2K	1/4W	UNF.Carbon	G
	R715	QRD141J-222S	2.2K	1/4W	Carbon	A
	R715	QRD141J-222S	2.2K	1/4W	Carbon	B
	R715	QRD141J-222S	2.2K	1/4W	Carbon	C
⚠	R716	QRD145J-222S	2.2K	1/4W	UNF.Carbon	D
⚠	R716	QRD145J-222S	2.2K	1/4W	UNF.Carbon	EBS
⚠	R716	QRD145J-222S	2.2K	1/4W	UNF.Carbon	F
⚠	R716	QRD145J-222S	2.2K	1/4W	UNF.Carbon	G
	R716	QRD141J-222S	2.2K	1/4W	Carbon	A
	R716	QRD141J-222S	2.2K	1/4W	Carbon	B
	R716	QRD141J-222S	2.2K	1/4W	Carbon	C
	R717	QRD141J-272S	2.7K	1/4W	Carbon	
⚠	R733	QRX022J-R22AM	0.22	2W	O.M.Film	
⚠	R734	QRX022J-R22AM	0.22	2W	O.M.Film	
⚠	R739	QRD145J-330S	33	1/4W	UNF.Carbon	
⚠	R740	QRD145J-330S	33	1/4W	UNF.Carbon	
⚠	R751	QRZ0062-100	10	1/4W	Fusible	F
⚠	R752	QRZ0062-100	10	1/4W	Fusible	F
⚠	R753	QRZ0062-100	10	1/4W	Fusible	F
⚠	R754	QRZ0062-100	10	1/4W	Fusible	F
⚠	R760	QRD145J-4R7S	4.7	1/4W	UNF.Carbon	
⚠	R797	QRD145J-470S	47	1/4W	UNF.Carbon	
⚠	R798	QRD145J-470S	47	1/4W	UNF.Carbon	
⚠	R801	QRD125J-2R2	2.2	1/2W	UNF.Carbon	
⚠	R802	QRD125J-122	1.2K	1/2W	UNF.Carbon	
⚠	R803	QRG022J-471AM	470	2W	O.M.Film	
⚠	R804	QRZ0062-150	15	1/4W	Fusible	D
⚠	R804	QRZ0062-150	15	1/4W	Fusible	EBS
⚠	R804	QRZ0062-150	15	1/4W	Fusible	F
⚠	R804	QRZ0062-150	15	1/4W	Fusible	G
⚠	R804	QRD145J-150S	15	1/4W	UNF.Carbon	A
⚠	R804	QRD145J-150S	15	1/4W	UNF.Carbon	B
⚠	R804	QRD145J-150S	15	1/4W	UNF.Carbon	C
⚠	R806	QRG022J-101AM	100	2W	O.M.Film	A
⚠	R806	QRG022J-101AM	100	2W	O.M.Film	B
⚠	R806	QRG022J-101AM	100	2W	O.M.Film	C
⚠	R806	QRG026J-101AF	100	2W	O.M.Film	D
⚠	R806	QRG026J-101AF	100	2W	O.M.Film	EBS
⚠	R806	QRG026J-101AF	100	2W	O.M.Film	F
⚠	R806	QRG026J-101AF	100	2W	O.M.Film	G
⚠	R807	QRG022J-101AM	100	2W	O.M.Film	A
⚠	R807	QRG022J-101AM	100	2W	O.M.Film	B
⚠	R807	QRG022J-101AM	100	2W	O.M.Film	C
⚠	R807	QRG026J-101AF	100	2W	O.M.Film	D
⚠	R807	QRG026J-101AF	100	2W	O.M.Film	EBS
⚠	R807	QRG026J-101AF	100	2W	O.M.Film	F
⚠	R807	QRG026J-101AF	100	2W	O.M.Film	G
⚠	R810	QRD145J-182S	1.8K	1/4W	UNF.Carbon	
⚠	R811	QRD145J-680S	68	1/4W	UNF.Carbon	
	R812	QRD141J-122S	1.2K	1/4W	Carbon	
	R813	QRD141J-122S	1.2K	1/4W	Carbon	
	R814	QRD141J-563S	56K	1/4W	Carbon	
	R816	QRD141J-473S	47K	1/4W	Carbon	
	R901	QRD141J-152S	1.5K	1/4W	Carbon	
	R902	QRD141J-152S	1.5K	1/4W	Carbon	
	R903	QRD141J-562S	5.6K	1/4W	Carbon	
	R904	QRD141J-562S	5.6K	1/4W	Carbon	
	R905	QRD141J-123S	12K	1/4W	Carbon	
	R906	QRD141J-123S	12K	1/4W	Carbon	
	R907	QRD141J-103S	10K	1/4W	Carbon	
	R908	QRD141J-332S	3.3K	1/4W	Carbon	
	R909	QRD141J-472S	4.7K	1/4W	Carbon	
	R910	QRD141J-563S	56K	1/4W	Carbon	
	R911	QRD141J-183	18K	1/4W	Carbon	
	R912	QRD141J-683S	68K	1/4W	Carbon	
	R913	QRD141J-153S	15K	1/4W	Carbon	
	R914	QRD141J-224	220K	1/4W	Carbon	
⚠	R915	QRG022J-391AM	390	2W	O.M.Film	
	R917	QRD141J-223S	22K	1/4W	Carbon	
	R918	QRD141J-104S	100K	1/4W	Carbon	
	R919	QRD141J-104S	100K	1/4W	Carbon	
	R920	QRD141J-823S	82K	1/4W	Carbon	
	R921	QRD141J-563S	56K	1/4W	Carbon	
	R922	QRD141J-820S	82	1/4W	Carbon	
⚠	R931	QRD125J-221	220	1/2W	UNF.Carbon	
⚠	R932	QRD125J-221	220	1/2W	UNF.Carbon	
	R950	QRD141J-472S	4.7K	1/4W	Carbon	
	R999	QRD141J-473S	47K	1/4W	Carbon	
	VR501	QVUB01C-E15B			Variable	
	VR502	QVUB01C-E15B			Variable	

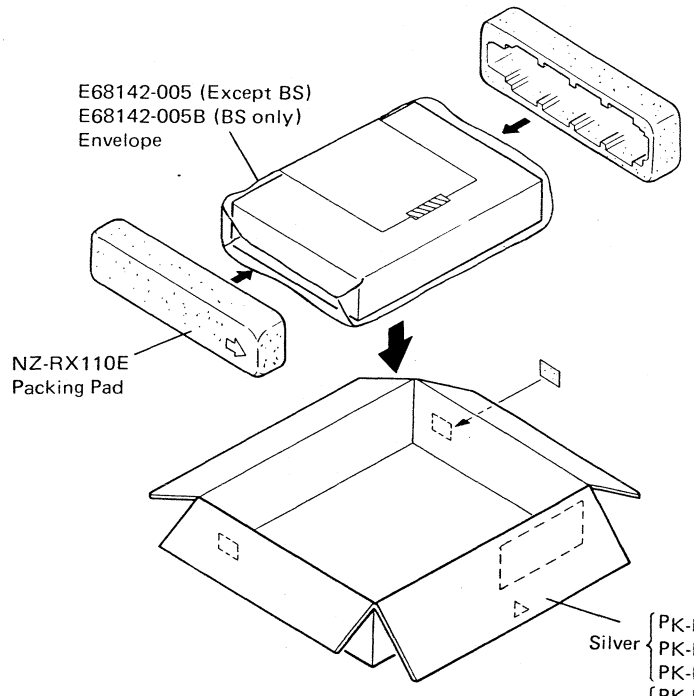
⚠ Safety parts

Others

⚠	Item	Part Number	Description	Area
		E11088-002	Circuit Board	A
		E11088-002	Circuit Board	B
		E11088-002	Circuit Board	C
		E11088-002	Circuit Board	D
		E11088-002	Circuit Board	F
		E11088-002	Circuit Board	G
		E11088-002BS	Circuit Board	EBS
		E303213-001	Heat Sink	
		SBSE3008Z	Screw	
⚠		QMC0437-002	AC Socket	A
⚠		QMC0437-002	AC Socket	C
⚠		QMC0440-001	AC Socket	B
		E45524-002	Fuse Clip	A
		E45524-002	Fuse Clip	B
		EMB90TV-801A	Speaker Terminal	
		E67764-102	Terminal Ass'y	A
		E67764-102	Terminal Ass'y	B
		E67764-102	Terminal Ass'y	C
		E67764-202	Wrapping Terminal	A
		E67764-202	Wrapping Terminal	B
		E67764-202	Wrapping Terminal	D
		E67764-202	Wrapping Terminal	EBS
		E67764-202	Wrapping Terminal	F
		E67764-202	Wrapping Terminal	G
		E65508-002	Tab	
		EMG7331-001	Fuse Clip	D
		EMG7331-001	Fuse Clip	EBS
		EMG7331-001	Fuse Clip	F
		EMG7331-001	Fuse Clip	G
		E71140-001	Spring	
		SBSB3008N	Screw	
		E65654-001	Spacer	D
		E65654-001	Spacer	EBS
		E65654-001	Spacer	F
		E65654-001	Spacer	G
		E70225-001	Earth Plate	F
		E70859-001	Earth Plate	
	P701	E04365-003	3P Socket	
	P801	E04365-006	6P Connector	
	P901	QMS6302-125	Headphone Jack(Silver only)	
	P901	QMS6302-128	Headphone Jack(Black only)	
⚠	RY901	ESK5D24-218	Relay	
	SW001	QSP2206-001	Push Switch	
	SW901	QST8261-E02	Push Switch	
	L701	EQL0001-R45	Coil	
	L702	EQL0001-R45	Coil	

⚠ Safety parts

5. Accessories List



The Marks for Designated Areas

J..... U.S.A.
C..... Canada
A..... Autsralia
E,LE..... Europe
G..... West Germany
P,PG..... U.S.Military Market
LBS..... U.K.
U..... Other Countries

4. Packing Materials and Part Numbers

⚠	Part Number	Part Name	Description	Areas
	E30580-1223A	Instruction Book		Except. LBS
	E30580-1223ABS	Instruction Book		LBS only
	BT20025H	Warranty Card		C
	BT20048B	Warranty Card		P, PG, J
	BT20029C	Warranty Card		A
	BT20064	Warranty Card		G
	BT20060	Warranty Card		BS
	BT20071A	Service Center		C, J
	BT20046B	Service Information Card		P, PG
	BT20066	EEC Agency		G, LBS
	BT20054-009A	FTZ Information Sheet		G
	BT20044D	Safety Instruction		J
	E66416-003	Envelope		J
	E35497-013	Caution Sheet	110V	P
	E35497-015	Caution Sheet	220V	U, PG
	E03614-004	Bilt-in Antenna		Except G
	E67007-001	Wire Antenna Ass'y		G
	EQB4001-002	Bar Antenna Coil		
⚠	E04056	Siemens Plug		U, PG
⚠	QMF51A2-1R6S	Fuse		U, PG
⚠	QMF51A2-R80	Fuse		P
	QPGA005-00703	Envelope		U, P, PG
	E41202-2	Envelope		Except LBS
	E41202-2B	Envelope		LBS

⚠ Safety parts